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**DEPARTMENT OF THE NAVY
JUSTIFICATION OF ESTIMATES
FOR FISCAL YEAR 1987**



SUBMITTED TO CONGRESS FEBRUARY 1986

PROCUREMENT

OTHER PROCUREMENT, NAVY

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Department of the Navy
Other Procurement, Navy

Justification of Estimates for Fiscal Year 1987

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By _____	
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Other Procurement, Navy

For procurement, production, and modernization of support equipment and materials not otherwise provided for, Navy ordnance and ammunition (except ordnance for new aircraft, new ships, and ships authorized for conversion); the purchase of not to exceed [nine hundred and twenty-four] nine hundred and eighty-four passenger motor vehicles of which [eight hundred and twenty-five] eight hundred and twenty-three shall be for replacement only; expansion of public and private plants, including the land necessary therefor, and such lands and interests therein, may be acquired and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway, [as follows: Ship support equipment, \$923,806,000; Communications and electronics equipment, \$2,096,302,000; Aviation support equipment, \$1,133,019,000; Ordnance support equipment, \$1,349,747,000; Civil engineering support equipment, \$232,558,000; Supply support equipment, \$58,917,000; Personnel and command support equipment, \$434,143,000; Spares and repair parts, \$279,838,000; Non-centrally managed items, \$125,300,000. In all: \$6,377,630,000]; \$6,538,800,000, to remain available for obligation until September 30, [1988: Provided, that within the total amount appropriated, the subdivisions within this appropriation shall be reduced by \$256,000,000] 1989 (10 U.S.C. 5012, 5031; Department of Defense Appropriation Act 1986, as included in Public Law 99-190; additional authorizing legislation to be proposed.)

04 Feb 86

Other Procurement, Navy
Program and Financing (in thousands of dollars) SUMMARY

Identification code	17-1810-0-1-051	Budget Plan (amounts for PROCUREMENT actions programmed)			Obligations		
		1985 actual	1986 est.	1987 est.	1985 actual	1986 est.	1987 est.
Program by activities:							
Direct program:							
00 0101	Ships support equipment	743,894	907,548	1,054,366	719,152	865,973	1,032,748
00 0201	Communications and electronics equipment	1,582,557	2,016,065	2,031,430	1,386,375	1,688,023	2,192,140
00 0301	Aviation support equipment	931,974	1,141,428	903,514	912,925	1,208,113	979,385
00 0401	Ordnance support equipment	1,050,565	1,241,480	1,259,820	1,053,665	1,208,573	1,262,475
00 0501	Civil engineering support equipment	228,842	229,390	267,260	236,718	189,723	281,318
00 0601	Supply support equipment	87,650	58,859	82,223	94,268	79,213	70,441
00 0701	Personnel and command support equipment	471,375	526,482	556,235	386,078	500,568	526,428
00 0801	Spare and repair parts		260,030	323,892		221,023	319,107
00 9101	Total direct program	5,106,757	6,381,282	6,538,800	4,789,181	5,961,233	6,664,038
01 0101	Reimbursable program	21,272	50,000	51,400	17,398	97,063	51,400
10 0001	Total	5,128,029	6,431,282	6,590,200	4,806,579	6,058,296	6,715,438
Financing:							
Offsetting collections from:							
11 0001	Federal funds(-)	-10,928	-35,000	-43,500	-1,938	-35,000	-43,500
13 0001	Trust funds(-)	-3,751	-10,000	-4,900	8,746	-10,000	-4,900
14 0001	Non-Federal sources(-)	-1,593	-5,000	-3,000	-2,160	-5,000	-3,000
17 0001	Recovery of prior year obligations				-18,943		
21 4002	Unobligated balance available, start of year:						
21 4003	For completion of prior year budget plans		-310,647		-1,988,584	-2,171,556	-2,544,542
21 4007	Available to finance new budget plans	-131,500				310,647	
22 4001	Reprogramming from/to prior year budget plan	13,582	310,647		13,582		
22 4001	Unobligated balance transferred to other accounts						
22 4001	Unobligated balance available, end of year:						
24 4002	For completion of prior year budget plans	310,647			2,171,556	2,544,542	2,419,304
24 4003	Available to finance subsequent year budget	42,128			310,647		
25 0001	Unobligated balance lapsing				42,128		
39 0001	Budget authority	5,341,614	6,381,282	6,538,800	5,341,614	6,381,282	6,538,800
Budget authority:							
40 0001	Appropriation	5,341,614	6,377,630	6,538,800	5,341,614	6,377,630	6,538,800
42 0001	Transferred from other accounts		3,652			3,652	
43 0001	Appropriation (adjusted)	5,341,614	6,381,282	6,538,800	5,341,614	6,381,282	6,538,800
Relation of obligations to outlays:							
71 0001	Obligations incurred, net				4,811,227	6,008,296	6,664,038
72 4001	Obligated balance, start of year				5,533,459	6,600,979	8,320,498
74 4001	Obligated balance, end of year				-6,600,979	-8,320,498	-10,402,655
77 0001	Adjustments in expired accounts				25,037		
78 0001	Adjustments in unexpired accounts				-18,943		

Other Procurement, Navy
 Program and Financing (in Thousands of dollars) SUMMARY

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Identification code	17-1810-0-1-051	1985 actual	1986 est.	1987 est.
90.0001	Outlays	3,749,801	4,288,777	4,561,661

Other Procurement, Navy
Program and Financing (in Thousands of dollars) FISCAL YEAR 1983 04 Feb 86

Identification code	17-1810-0-1-051	Budget plan (amounts for PROCUREMENT actions programmed)			Obligations
		1985 actual	1986 est.	1987 est.	
Program by activities:					
Direct program:					
00.0101	Ships support equipment			33,694	
00.0201	Communications and electronics equipment			117,257	
00.0301	Aviation support equipment			43,715	
00.0401	Ordnance support equipment			41,191	
00.0501	Civil engineering support equipment			49,589	
00.0601	Supply support equipment			18,904	
00.0701	Personnel and command support equipment			16,519	
00.9101	Total direct program			318,869	
01.0101	Reimbursable program			14,808	
10.0001	Total			333,477	
Financing:					
Offsetting collections from:					
11.0001	Federal funds(-)			6,330	
13.0001	Trust funds(-)			15,854	
14.0001	Non-Federal sources(-)			5	
17.0001	Recovery of prior year obligations			-7,701	
21.4002	Unobligated balance available, start of year.			-437,775	
21.4007	For completion of prior year budget plans				
22.4001	Reprogramming from/to prior year budget plan	-89,810			47,682
25.0001	Unobligated balance transferred to other acc	47,682			42,128
	Unobligated balance lapsing	12,128			
39.0001	Budget authority				

Other Procurement, Navy

04 Feb 86

Program and Financing (in Thousands of dollars) FISCAL YEAR 1984

Identification code	17-1010-0-1-051	Budget Plan (amounts for PROCUREMENT actions programmed)			Obligations
		1985 actual	1986 est.	1987 est.	
Program by activities:					
Direct program:					
00.0101	Ships support equipment	116,330			52,787
00.0201	Communications and electronics equipment	308,335			198,763
00.0301	Aviation support equipment	140,464			73,288
00.0401	Ordnance support equipment	211,382			60,585
00.0501	Civil engineering support equipment	60,213			34,702
00.0601	Supply support equipment	34,813			16,096
00.0701	Personnel and command support equipment	104,843			75,466
00.9101	Total direct program	976,380			511,667
01.0101	Reimbursable program		2,790		25,792
10.0001	Total		979,170		537,459
Financing:					
Offsetting collections from:					
11.0001	Federal funds(-)		2,660		
13.0001	Trust funds(-)		1,643		
14.0001	Non-Federal sources(-)		-572		
17.0001	Recovery of prior year obligations		-11,242		
21.4002	Unobligated balance available, start of year:				
21.4003	For completion of prior year budget plans				
21.4007	Available to finance new budget plans				
22.4001	Reprogramming from/to prior year budget plan				
24.4002	Unobligated balance transferred to other acc				
24.4003	Unobligated balance available, end of year:				
	For completion of prior year budget plans				
	Available to finance subsequent year budget				
39.0001	Budget authority				

Other Procurement, Navy
 Program and Financing (in Thousands of dollars) FISCAL YEAR 1986 04 Feb 86

Identification code	17-1810-0-1-051	Budget Plan (amounts for PROCUREMENT actions programmed)			Obligations	
		1985 actual	1986 est.	1987 est.	1985 actual	1986 est.
Program by activities:						
Direct program:						
00.0101	Ships support equipment		907,548		701,085	145,838
00.0201	Communications and electronics equipment		2,016,065		1,159,158	485,414
00.0301	Aviation support equipment		1,141,428		979,315	105,581
00.0401	Ordnance support equipment		1,241,480		968,098	218,715
00.0501	Civil engineering support equipment		229,390		113,145	50,509
00.0601	Supply support equipment		58,859		29,381	21,436
00.0701	Personnel and command support equipment		526,482		280,689	93,154
00.0801	Spares and repair parts		260,030		221,026	39,004
00.9101	Total direct program		6,381,282		4,451,897	1,157,831
01.0101	Reimbursable program		50,000		50,000	
10.0001	Total		6,431,282		4,501,897	1,157,831
Financing						
Offsetting collections from:						
11.0001	Federal funds(-)		-35,000		-35,000	
13.0001	Trust funds(-)		-10,000		-10,000	
14.0001	Non-Federal sources(-)		-5,000		-5,000	
21.4002	Unobligated balance available, start of year: For completion of prior year budget plans					-1,929,385
24.4002	Unobligated balance available, end of year: For completion of prior year budget plans				1,929,385	771,754
39.0001	Budget authority		6,381,282		6,381,282	
Budget authority:						
40.0001	Appropriation		6,377,630		6,377,630	
42.0001	Transferred from other accounts		3,652		3,652	
43.0001	Appropriation (adjusted)		6,381,282		6,381,282	

Other Procurement, Navy
Program and Financing (in thousands of dollars) FISCAL YEAR 1987

04 Feb 86

Identification code	17-1810-0-1-051	Budget Plan (amounts for PROCUREMENT actions programmed)			Obligations		
		1985 actual	1986 est.	1987 est.	1985 actual	1986 est.	1987 est.
Program by activities:							
Direct program:							
00.0101	Ships support equipment			1,054,366			824,242
00.0201	Communications and electronics equipment			2,031,430			1,415,055
00.0301	Aviation support equipment			963,514			826,228
00.0401	Ordnance support equipment			1,259,820			966,174
00.0501	Civil engineering support equipment			267,260			170,759
00.0601	Supply support equipment			82,223			37,645
00.0701	Personnel and command support equipment			556,295			371,044
00.0801	Spare and repair parts			323,892			260,103
00.9101	Total direct program			6,538,800			4,891,250
01.0101	Reimbursable program			51,400			51,400
10.0001	Total			6,590,200			4,942,650
Financing:							
Offsetting collections from:							
11.0001	Federal funds(-)			-43,500			-43,500
13.0001	Trust funds(-)			-4,900			-4,900
14.0001	Non-Federal sources(-)			-3,000			-3,000
24.4002	Unobligated balance available, end of year: For completion of prior year budget plans						1,647,550
40.0001	Budget authority (Appropriation)			6,538,800			6,538,800

BUDGET ACTIVITY 1. SHIP SUPPORT EQUIPMENT
SUMMARY OF BUDGET PLAN
(In thousands)

	FY 1985 ACTUAL	FY 1986 ESTIMATE	FY 1987 ESTIMATE	FY 1988 ESTIMATE	JUSTIFICATION PAGE
SHIP PROPULSION EQUIPMENT	22,368	55,147	77,073	58,600	10
GENERATORS AND PUMPS	11,367	26,441	33,484	23,828	11
AIR COMPRESSORS	2,676	3,241	8,505	5,986	11
PROPELLERS	7,083	13,521	11,714	14,470	11
NAVIGATION EQUIPMENT	33,013	54,563	46,753	41,585	12
UNDERWAY REPLENISHMENT EQUIPMENT	8,754	8,457	2,559	4,594	12
PERISCOPES	19,798	19,853	27,210	29,150	12
OTHER SHIPBOARD EQUIPMENT:					
SHIP SILENCING	17,270	19,411	36,059	25,900	13
STRATEGIC PLATFORM SUPPORT	42,625	53,755	72,778	120,668	14
DEEP SUBMERGENCE	13,171	11,262	9,797	14,400	14
SHIP SUPPORT IMPROVEMENT	10,543	15,377	25,544	29,845	14
MINESWEEPING CABLES	5,379	5,019	7,350	8,559	15
SAFETY EQUIPMENT	21,664	22,600	23,015	27,816	15
MISCELLANEOUS	68,253	110,057	139,301	123,641	15
REACTOR PLANT EQUIPMENT	384,381	391,122	430,385	526,644	16
OCEAN ENGINEERING	26,369	45,651	43,562	50,765	16
SMALL BOATS	14,146	14,777	19,570	17,011	17
TRAINING EQUIPMENT	4,281	30,448	18,622	4,268	17
PRODUCTION FACILITIES EQUIPMENT	27,999	6,846	20,241	31,302	17
SPARES AND REPAIR PARTS	2,754	---	---	---	17
TOTAL BUDGET PLAN	743,894	907,548	1,054,366	1,159,016	

Budget Activity 1 - Ships Support Equipment

(\$ In Thousands)
FY 1988 Estimate \$1,159,016
FY 1987 Estimate \$1,054,366
FY 1986 Estimate \$ 507,548
FY 1985 Actual - \$ 743,894

Purpose and Scope of Work

Budget Activity 1 programs include Shipboard Components, Reactor Cores and Reactor Plant Components, support of the Deep Submergence, TRIDENT and Small Boat procurement programs, and procurement of Production Facilities and training equipment.

Shipboard components, as well as nuclear components and small boats, are procured for direct support or installation on Active Fleet ships as part of a planned maintenance replacement program or as part of an improvement program. These components are also procured to fill authorized stock requirements. Funding for the Deep Submergence Program is aimed at expanding the Navy's capability to live, work, explore and perform rescue missions in deep ocean areas.

Ship Propulsion Equipment (P-1 Line Items 1-5)

(\$ In Thousands)
FY 1987 \$77,073
FY 1986 \$56,600

These funds will provide for the procurement of equipment designed to improve the reliability, maintainability, fuel efficiency, power output, and durability of the LM 2500 Gas Turbine Engines. The LM 2500 engines were introduced into the Fleet through the DD-563 and FFG-7 Class construction programs and the Allison 501K Gas Turbine engine was introduced into the Fleet through the DD-563, DDG 553, and DD-557 Class ships. These improvements will be accomplished through procurement of modifications identified as a result of the Component Improvement Program. Existing 1200 and 600 PSI Steam Plants require sufficient funds to modify and improve reliability through the procurement of fuel oil strainers, lube oil mods, boiler conductivity monitoring systems, stack gas analyzers, and lube oil strainers. Funds requested will also procure ME831-800 gas turbines, fin stabilizer mods, support for LCAC gas turbines, support for marine diesel engines, clutch retrofit for DL-963/993 class ships, and a depot modernization program for SSN 686 class.

Generators and Pumps (P-1 Line Items 6-7)

(\$ In Thousands)	
FY 1987	FY 1988
\$53,484	\$25,626

Funding requested for these programs will provide for continuation of programs to replace obsolescent, unsupportable, underpowered and unreliable generators and pumps of various capacities and sizes. These programs also procure equipment to support programmed SHIPALTS. Types of equipment procured include a 500KW ship service motor for SSN 688's, arcing fault detector for SSN and SSBN overhauls; 1500KW emergency diesel generator for LPH-2 class, 60/400 HZ motor generator sets for CG, CGN and DDG class overhauls; diesel ship service power units for PHMs; depot maintenance equipment for SSN 688 class, air conditioning chiller water pumps; trim and drain pumps for SSK's and SSBN's; fire pumps/ends/motors for CVs/CVNs and DDG-37 class, and pumps for the auxiliary/amphibious ship maintenance strategy program; the surface ship advanced equipment repair program, and the depot modernization program for SSN-688 class.

Air Compressors (P-1 Line Items 8-9)

(\$ In Thousands)	
FY 1987	FY 1988
\$8,509	\$5,986

These funds will provide for the procurement of greater capacity and more reliable high pressure air compressors than those currently installed in the Active Fleet. Oil free 20 cubic feet/hour (CFH) air compressors are needed to support combat weapon systems on combatants. Also being procured are 30 cubic feet/hour air compressors which are essential to the operation of Liquid Oxygen Generating Plants on aircraft carriers in direct support of aircraft, 20 cubic feet/hour air compressors for the surface ship advanced equipment repair program, low pressure blowers for SSN-637 class, and equipment for the SSN-668 depot modernization program.

Propellers (P-1 Line Items 10-11)

(\$ In Thousands)	
FY 1987	FY 1988
\$11,714	\$14,476

The requested funding will provide for the procurement of propellers to reduce the noise signature on FBH and attack submarines and as replacements for those propellers currently installed as casualties occur. Funds are also required for replacement of blades, shafts and hubs in support of active fleet ships as damage or failure occurs, as well as for support inventories for the newer classes of ships such as FFG 7s, DD 963/963s, CG-47s and the AG 177s.

Navigation Equipment (P-1 Line Items 12-14)

(\$ In Thousands)	
FY 1987	FY 1988
\$46,793	\$41,589

These funds will procure Electrically Suspended Gyro Navigators (ESGN) which are programmed as replacements for the MK-3 Ships Inertial Navigation System (SINS) on SSN-637 Class and SSNs 671 and 685; and as replacements for the Dual Miniature Inertial Navigation System (DMINS) on SSN-688 Class ships. The improvement over the MK-3 SINS is in reliability, maintainability, availability, and performance. The improvement over DMINS is in performance. Funds are also budgeted for the CV/CVN navigation system which will replace the MK-3 SINS system. This system will provide for improvements in reliability, maintainability, and availability. Funds are also budgeted for maintenance items and newly developed improvements such as the AN/WSN-5 Inertial Navigation Sets for CG/CAGN/DUG Class ships, the AN/SSQ-67(V) Hydrofoil Collision Avoidance and Tracking System for PHMs and the Doppler Sonar Velocity Log for SSN's and SSBN's.

Underway Replenishment Equipment (P-1 Line Item 15)

(\$ In Thousands)	
FY 1987	FY 1988
\$2,959	\$4,594

The equipment procured under this program is required to provide the Active Fleet with new or improved underway replenishment-at-sea capability. This equipment is used to transfer fuel, cargo, ammunition, and missiles by both alongside and vertical replenishment techniques. The equipment being procured supports the following objectives: personnel/equipment safety; reduction in maintenance costs; and reduction in alongside time, to minimize ship vulnerability to enemy action. Major equipment includes ram tensioners, air flasks, vertical conveyors, saddle winches, and elevator controllers.

Periscopes (P-1 Line Items 16-18)

(\$ In Thousands)	
FY 1987	FY 1988
\$27,210	\$29,130

These funds will provide for the procurement of Type 18 periscope related material and other periscopes and accessories. The Type 18 periscope equipment includes eyepiece boxes and masts which are required to establish an inventory of these parts based on actual/predicted failure rates and turn around times and automatic direction finding modifications. Funds are required to procure a Submarine Satellite Information Exchange reception capability on Type 18 periscopes. Type 18 periscope systems will also be procured to

establish a rotatable pool of ready-for-issue assets in support of the depot modernization program for SSN 686 class submarines. Field change kits are being procured to implement approved changes on previously procured Type 18 periscopes. Equipment to provide additional shore/tender based components for other type periscopes is also required to ensure that an issuable periscope is always available as a replacement for damaged units on SSN-594 and 637 Class ships. This requirement is based on past demand experience and repair turn around time. The Type 6 periscope program will enable the modification of Type 8 periscopes to incorporate solid state amplifiers, twelve-channel rotary joints, and improved slip ring assemblies, noise source and sapphire heated head window assemblies. Type 2 Mod 3 periscopes will be procured to replace existing periscopes on SSBN submarines. The improvement over existing equipment is enhanced imaging and communications. Funding will also provide for support and improvement of the Type 2 and 15 series periscopes for all Active Fleet submarines.

Other Shipboard Equipment (Ship Silencing) (P-1 Line Items 22-23)

(\$ In Thousands)	
FY 1987	FY 1988
\$36,059	\$25,500

The requested funds will provide for the procurement of equipment such as Glass Reinforced Plastic (GRP) Domes, air reducing manifolds, acoustically balanced diffuser pump casings, high pressure brine pump modification kits, main lube oil lined pipe acoustic filters, vent fan modifications and noise/vibration monitor analyzers required to implement the high priority Submarine Silencing program on existing nuclear submarines and for the acoustic quieting of radiated noise and sonar self-noise for surface ships. The submarine silencing equipment incorporates technology developed under RDT&E programs for improving detection capability and reducing the detectability of the submarine. The surface ship silencing program will make use of the extensive silencing technology already developed under the Submarine Silencing program. FY 1987 and FY 1988 funding provides for the procurement of Masker Belts for CGs, PRAIRIE Masker equipment for CVs, AEs and AUs, Compound Air Maskers for large combatants, and flex hose and line filters for DD's and DDG's.

Other Shipboard Equipment (STRATEGIC PLATFORM SUPPORT) (P-1 Line Item 25)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1986</u>
\$72,778	\$120,668

Funding for this program provides for hull, mechanical and electrical equipment and tools required to perform measurements in support of maintenance tasks, equipment to develop stock levels for TRIDENT plant equipment and repair (TRIPER) equipments to achieve the required operational availability and to achieve a depot availability period which does not exceed one year; alteration/modification packages for TRIPER equipment to maintain standardization and interchangeability of assets; long lead material/equipment for the advanced equipment replacement program; main shaft seal mating rings, and alteration/modification packages for hull, mechanical and electrical equipment.

Other Shipboard Equipment (Deep Submergence) (P 1 Line Item 26)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1986</u>
\$9,797	\$14,400

The requested funds will provide for the procurement of hardware to improve/modify Deep Submergence Vehicles to provide the Navy with the capability to rescue personnel from craft disabled on the ocean floor. It also will improve the capability to perform manned underwater search, inspection and recovery missions.

Other Shipboard Equipment (Ship Support Improvement) (P-1 Line Items 31 and 37)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1986</u>
\$25,944	\$29,845

These programs will procure critical, long lead time equipments, assemblies and components to support the maintenance-limited LO-HIX classes of ships after delivery; provide for improvement in the material condition of Engineered Operating Cycle ships achieve increased operational availability and provide funds to upgrade facilities both ashore and afloat (industrial plant and tenders) in order to improve and expand intermediate level maintenance by the surface forces. Shipboard maintenance will emphasize modular replacement with repairables being returned to Intermediate Maintenance Activities and Depot Overhaul Points for repair or rework and return to stock. Inherent in the Engineering Operating Cycle will be several intervening maintenance availabilities of extremely short duration for performing scheduled alteration and planned overhaul of installed equipment.

Other Shipboard Equipment (Minesweeping Cables) (P-1 Line Item 29)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$7,350	\$8,559

This program will provide for the procurement of minesweeping cables necessary to counter moored and influence mines. These funds will procure Q-3 and S-3 cables, mine neutralization system vehicles, cables and modification kits; and a complete mine neutralization system in FY 1987 and FY 1988.

Other Shipboard Equipment (Safety Equipment) (P-1 Line Items 19, 33, and 35)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$23,015	\$27,616

These funds procure equipment which supports shipboard fire fighting operations, fuel tank inspection, and other activities which can involve the exposure of lungs to noxious substances. Funding will provide the Navy with the latest available safety equipment in order to perform assigned tasks without risking personal injury, provide for the protection of personnel from exposure to nuclear weapons radiation and provide ships of the active fleet with the capability to detect chemical warfare agents before ship contamination occurs. FY 1987 and FY 1988 funding will provide Halon 1301 Fire Fighting systems to complement the existing Aqueous Film Forming Foam/Purple K Dry Chemical Powder hose reel systems in machinery spaces as well as procurement of this system in a mobile/portable form and Oxygen Breathing Apparatus Voice Amplifiers to improve communications between fire fighting team members, shielding which will be affixed to bulkheads and to cradles containing the individual weapons on CVs, SSN-688 Class, Non-FBA, ASs and at shore facilities, and chemical warfare directional detectors and chemical agent point detector systems.

Other Shipboard Equipment (Miscellaneous) (P-1 Line Items 20, 21, 24, 27, 28, 30, 32, 34, 36 and 38)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$139,301	\$123,641

These funds provide for the procurement of Combat System Command and Control Switchboards, equipment which will enable the Navy to comply with Federal law and DOD environmental pollution control regulations, replacement batteries for all active submersible craft/submarines, procurement and positioning of special equipment for merchant ships to provide them with the capability to perform Naval auxiliary roles, provision of specialized equipment to assure reliable repair of electronic modules at selected shore.

surface and subsurface Fleet activities, acquisition of energy conservation systems, equipment and modifications developed through the Chief of Naval Operation's Energy Research and Development program for installation aboard ships in the Fleet; the Gas Management System for installation on board submarines which will enhance safety and reduce the submarines' vulnerability to detection; and modifications/replacements for all equipment that is not in a specific category and which cost less than \$500,000 by category

Reactor Plant Equipment (P 1 Line Items 39 and 40)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$430,385	\$526,644

The FY 1987 and 1988 requests provide funds for the procurement of replacement reactor cores, power units and other reactor plant components and equipment. Replacement cores and power units are the assemblies of nuclear fuel and necessary associated structural and reactivity control equipment required for the periodic refueling of nuclear powered ships. The procurement of these units is accomplished by the Department of Energy (DOE). The DOE has developed production lines within the civilian nuclear industry to fabricate these units. The funds requested are required to meet the refueling needs of the Navy in a manner most efficient to the government as recommended by the DOE. The reactor component line item includes the components, equipment, and material required to provide minimum support needed for the continued safe and reliable operations of naval nuclear propulsion plants. Funds are programmed for acquisition of replacement components for ship alterations, initial and replenishment stock spare components, and specialized equipment necessary for refueling of nuclear powered ships.

Ocean Engineering (P-1 Line Items 41-42)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$43,562	\$50,760

These programs provide for the procurement of equipment to support safety requirements at the existing depth capabilities and mission duration restrictions imposed on the working diver, equipment to improve the Navy's diving capabilities and maintain sufficient levels of critical salvage items; and improved equipment developed as part of Swimmer Support Systems for Underwater Demolition Teams, SEAL Teams and Inshore Undersea Warfare Groups. FY 1987 and FY 1988 funds will procure the MK14 Push Pull System and the Deep Tool System, Ready on Pier Emergency Repair diving cart, diving boats; hardware which will increase the U.S. Navy operational surface supported maximum diving depth from 300 to 450 feet and salvage equipment such as hydraulic pullers, stato anchors, puller beach gearlegs, and synthetic line, MK-VIII Swimmer delivery vehicle, deck shelters, SEAL team outfitting, laser target designator, reserve equipment, and underwater breathing apparatus.

Small Boats (P-1 Line Items 43)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$19,570	\$17,01.

Standard boats procured with these funds will be used to fill new or revised allowances, to replace obsolete wooden boats now in service, and to replace boats of fiberglass or steel construction, which are beyond economical repair. Types of boats to be procured with these funds include the 26' Motor Whaleboat, 14' Punt, 35' and 50' Workboat, 24' EOD Craft, and 58' EOD Support Craft.

Training Equipment (P-1 Line Item 44 and 45)

(\$ Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$18,622	\$4,268

This program provides equipments for the support of initial training requirements developed through the Navy Training Plan process and sustaining training requirements developed by the Chief of Naval Education and Training. This funding will also procure equipment for the construction of a CG-47/DD 963 gas turbine operational facility.

Production Facilities Equipment (P-1 Line Items 46, 47 and 48)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$20,241	\$31,362

These programs provide for the procurement of replacement cranes for the floating dry dock at Norfolk Naval Shipyard, funding required for industrial plant equipment and other shop equipment necessary to support Navy managed facilities; machine tools, industrial plant equipment and other plant equipment necessary to support the Fleet Operations Program and calibration equipment for the intermediate and organizational maintenance levels.

Spares and Repair Parts (P-1 Line Item 49)

This program provides for the procurement of initial spares and repair parts required to support components installed on-board ships of the Active Fleet. Funding for this program was transferred to Budget Activity 8 in FY 1986.

BUDGET ACTIVITY 2: COMMUNICATIONS AND ELECTRONIC EQUIPMENT
SUMMARY OF BUDGET PLAN
(In Thousands)

	FY 1985 ACTUAL	FY 1986 ESTIMATE	FY 1987 ESTIMATE	FY 1988 ESTIMATE	JUSTIFICATION PAGE
SHIP RADARS	163,870	156,017	138,427	166,018	19
SHIP SONARS (SURFACE SHIPS)	70,516	46,149	83,687	104,465	20
SHIP SONARS (SUBMARINES)	116,967	120,372	89,724	45,914	20
SHIP SONARS (GENERAL SUPPORT)	42,864	51,013	46,900	61,117	21
ANTI-SUBMARINE WARFARE ELECTRONICS (SURFACE SHIPS)	163,403	215,220	159,520	189,450	21
ANTI-SUBMARINE WARFARE ELECTRONICS (SUBMARINE)	5,133	10,666	70,114	85,952	22
ANTI-SUBMARINE WARFARE ELECTRONICS (AVIATION)	36,683	54,344	40,617	21,941	22
ANTI-SUBMARINE WARFARE ELECTRONICS (SURVEILLANCE)	87,375	100,720	102,933	105,371	23
ELECTRONIC WARFARE EQUIPMENT	92,254	164,679	198,056	267,749	23
RECONNAISSANCE EQUIPMENT	63,817	80,924	77,526	158,124	24
SUBMARINE SURVEILLANCE EQUIPMENT	7,054	23,693	9,663	86,477	24
OTHER SHIPBOARD ELECTRONIC EQUIPMENT	178,796	374,556	323,716	323,070	25
TRAINING EQUIPMENT	3,396	3,935	5,035	2,642	26
AVIATION ELECTRONIC EQUIPMENT	64,126	57,457	120,676	134,877	26
OTHER SHORE ELECTRONIC EQUIPMENT (COMM & CONTR)	16,218	37,676	46,065	36,654	27
OTHER SHORE ELECTRONIC EQUIPMENT (MISCELLANEOUS)	52,748	69,026	67,636	225,697	27
SHIPBOARD COMMUNICATIONS	52,068	51,591	67,607	65,004	28
SUBMARINE COMMUNICATIONS	33,323	63,533	91,546	84,384	29
SATELLITE COMMUNICATIONS	30,340	68,750	43,523	56,383	29
SHORE COMMUNICATIONS	39,014	83,552	69,436	83,760	30
CRYPTOGRAPHIC EQUIPMENT	111,675	155,511	158,914	195,066	30
CRYPTOLOGIC EQUIPMENT	14,024	19,138	12,008	24,504	31
OTHER ELECTRONIC SUPPORT	10,828	7,534	8,099	5,252	32
SPARES AND REPAIR PARTS	126,065	---	---	---	32
TOTAL BUDGET PLAN	1,582,557	2,016,065	2,031,428	2,529,871	

Budget Activity 2: Communications and Electronic Equipment

(\$ In Thousands)	
FY 1988 Estimate	- \$2,529,871
FY 1987 Estimate	- \$2,031,428
FY 1986 Estimate	- \$2,016,065
FY 1985 Actual	- \$1,582,557

Purpose and Scope of Work

Budget Activity 2 programs include the procurement of shipboard and shore communications and electronic equipment for the Active Fleet and training activities. Improved shipboard surface and air search radars are designed to enhance the military capability of combatant ships. Anti-Submarine Warfare Electronics equipment will furnish surface ships, submarines and special shore activities with equipment used for detection, tracking localization and classification of submarines. Special sonars are procured for employment in Fleet Ballistic Missile submarines. Also procured in this activity is equipment which will provide the Fleet with the capability of deceiving, intercepting, and analyzing airborne, electro-magnetic and underwater radiation for the purpose of executing an effective surveillance and intelligence collection capability.

Justification of Funds:

Ship Radars (P-1 Line Items 50-56)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$138,427	\$166,018

The FY 1987 and FY 1988 Ship Radar procurements provide the Active Fleet with detection, tracking and identification equipment to meet the challenge of high speed attack capabilities of low-flyers, anti-ship missiles and modern aircraft. Specific radars and radar equipment improvements to be procured in FY 1987 and FY 1988 include the AN/SPS-67(V) radar (the modernized version of the AN/SPS-10 radar), which is the primary surface search radar in the Fleet (FY 1987 \$7.2 million; FY 1988 \$4.0 million); the AN/SPS-40 radar system improvements which are designed to increase detection capability in hostile, cluttered, or low-flyer threat environments through improved system availability and automation techniques (FY 1987 \$17.7 million; FY 1988 \$29.9 million); the AN/SPS-48 radar, a three-coordinate air search radar which has a primary function of providing target position data to a weapon system (FY 1987 \$48.8 million; FY 1988 \$59.6 million); the AN/SPS-49 radar, a narrow beamed, very long-range two dimensional, air search radar (FY 1987 \$17.0 million; FY 1988 \$27.3 million); the Integrated Automatic Detection and Tracking System (AN/SYS-()) which provides the capability to correlate contact data from up to three radars, determine target tracks, and provide a

single target output to the ship's command and decision system automatically (FY 1987 \$13.7 million; FY 1988 \$14.6 million); and the MK-23 Target Acquisition System, a rapid reaction, fully automatic, electronic counter-counter-measure capable radar system developed as the target acquisition system for the Improved Point Defense Surface Missile System (FY 1987 \$20.1 million; FY 1988 \$19.1 million). The FY 1987 and FY 1988 request also includes funding for procurement of various radar support items (FY 1987 \$13.9 million; FY 1988 \$11.5 million).

Ship Sonars (Surface Ships) (P-1 Line Items 57-59 and 62)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1987</u>
\$83,687	\$104,465

Funds requested for Surface Ship Sonars include \$14.2 million in FY 1987 and \$12.8 million in FY 1988 for procurement of AN/SQS-26 CX 153A sonar improvements. \$25.1 million in FY 1987 and \$64.0 million in FY 1988 provide for follow-on procurements of AN/SQS-53B Shipboard Kits (four in FY 1987 and six in FY 1988). \$10.4 million budgeted in FY 1987 and the \$7.3 million budgeted in FY 1988 provides for the procurement of emergency replacement windows and domes for the AN/SQS-26/53, AN/SQ-23, AN/SQS-56 and AN/SQS-38 sonar systems. In addition, the \$34.0 million budgeted in FY 1987 and the \$20.4 million budgeted in FY 1988 provides for the initial procurement of two AN/SQS-53C sonars for configuration software maintenance and technical training.

Ship Sonars (Submarines) (P-1 Line Items 60, 61 and 65)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$89,724	\$45,914

These funds provide for continued procurement of AN/BQQ-5 modification kits required to upgrade previously procured and installed AN/BQQ-5 systems onboard SSN-637 and SSN 688 class submarines and maintenance trainers (FY 1987 \$83.3 million; FY 1988 \$28.7 million). Beginning in FY 1987, a competitive (one year with two one-year options) procurement of TB-16 arrays is planned for six units, with an additional 22 units planned for subsequent procurement (FY 1987 \$4.6 million; FY 1988 \$6.9 million). These funds also provide for procurement of AN/BQR-23 Improved Processors and Memory, AN/BQR-15 array modification shipalfts, AN/BQQ-9 systems and various other alterations for installation on SSBN class submarines (FY 1987 \$1.8 million; FY 1988 \$10.3 million).

Ship Sonars (General Support) (P-1 Line Items 63 and 64)

	(\$ In Thousands)
	<u>FY 1987</u>
	<u>FY 1988</u>
	\$46,900
	\$61,117

These funds procure upgrade equipment for the Transducer Repair Facilities, including Towed Line Array (TLA) plant equipment for the TB-16, AN/SQS-18A(V)1, AN/SQR-18A(V)2, and AN/SQR-19; and engineering changes for the AN/BQS-14 including the upgrade of the Forward Look (FLU) portion of this sonar, and AN/BQS-15 (FY 1987 \$10.4 million; FY 1988 \$12.3 million). This request also includes resources to continue procurement of TR-317 transducers for the AN/BQS-11/12/13 and AN/BQ-5 sonars for use on SSN-594, SSN-637 and SSN-688 class submarines; new TR-313 transducers for the AN/SQS-26 Sonar; and Electronic Scanning Switches required to support replacement of unreliable mechanical switches with electronic switches on both surface ships and submarines (FY 1987 \$36.5 million; FY 1988 \$48.8 million).

Anti-Submarine Warfare Electronics (Surface Ships) (P-1 Line Items 67 and 71-74)

	(\$ In Thousands)
	<u>FY 1987</u>
	<u>FY 1988</u>
	\$159,520
	\$189,450

The FY 1987 and FY 1988 funding provides for the procurement and support of major ASW electronics systems for installation on deploying ships and those in the Naval Reserve Force. This request includes procurement of 34 AN/SLQ-25 (NIXIE) systems in FY 1987 and 4 systems in FY 1988 as well as eight AN/SLQ-36 systems planned as replacements for the AN/SLQ-25 on selected ships (FY 1987 \$9.4 million; FY 1988 \$45.5 million); AN/SQR-17 performance improvements and AN/SKR-4 Data Link Modifications required to receive the new DIFAR/DICASS frequencies (FY 1987 \$7.8 million; FY 1988 \$5.1 million); improvements to increase the service life of the AN/SQR-15 Towed Array System (FY 1987 \$1.2 million; FY 1988 \$0.8 million); 10 complete AN/SQR-19 systems with 10 AN/UYQ-21 full displays in FY 1987 and 10 AN/SQR-19 systems with two full AN/UYQ-21 displays in FY 1988 (FY 1987 \$112.4; FY 1988, \$100.2) and procurement of kits to upgrade the AN/SQR-18A systems to the AN/SQR-18A(V)1 configuration and continue procurement in FY 1987 and FY 1988 of the AN/SQR-18(V)2 critical angle tow systems which employ the AN/SQR-19 hoist for installation on non-variable depth sonar ships (FY 1987 \$28.7 million; FY 1988 \$37.9 million).

Anti-Submarine Warfare Electronics (Submarine) (P-1 Line Items 66, 68 and 69)

	(\$ In Thousands)
	FY 1987
	\$70,114
	\$85,952

The request includes \$23.2 million in FY 1987 and \$40.4 million in FY 1988 for Submarine Acoustic Warfare Systems (SAWS) which will provide an enhanced survival capability for submarines to use against enemy torpedoes and a means to reduce the effectiveness of enemy sensors. These funds also provide for procurement of AN/FLR-14/BQR-15 Interface Engineering Changes, procurement of the Acoustic Device Countermeasure (ADC) MK-1, MK 2 NAE Beacons (MK3), AN/BQH-7 engineering changes and expendable probes, AN/MLR-9/12 engineering changes and, commencing in FY 1988, the Countermeasures Set Acoustic (CSA) MK 2 MOD 0 for SSBNs and CSA MK MOD 1 for SSN-637 class submarines, AIR display engineering changes, ADC MK 3, associated SHIPALTS/ECPS and production support. \$46.2 million budgeted in FY 1987 and \$44.3 million budgeted in FY 1988 provide for the procurement of team trainers, Intermediate Maintenance Activities (IMAS) equipment and module screening and repair activities equipment to support the AN/BSY-1 Combat Control and Acoustic Set. In addition, \$.7 million in FY 1987 and \$1.2 million in FY 1988 is requested for the Acoustic Communications system, a multi-phase program which provides improved tactical acoustic communications systems for the three primary Anti-Submarine Warfare platforms (aircraft, surface ships, and submarines).

Anti-Submarine Warfare Electronics (Aviation) (P-1 Line Items 76 and 77)

	(\$ In Thousands)
	FY 1987
	\$40,617
	\$21,941

These funds will procure reliability and operability improvements to ADP equipment and will provide for continued production of UYQ-21 displays in FY 1987 and FY 1988 as well as continued procurement of improvements to the Acoustic Analysis subsystem and UYQ-21 displays. All of these are components of the Carrier ASW Module of the Carrier Combat Direction System (FY 1987 \$27.9 million; FY 1988 \$18.0 million). The request also includes resources to support procurement of various equipments which support the ASW Operations Center (ASWOC) which is the land based terminus for ASW area commanders in the overall Navy Command Control System (NCCS). (FY 1987 \$12.7 million; FY 1988 \$3.9 million).

Anti-Submarine Warfare Electronics (Surveillance) (P-1 Line Items 70 and 75)

	(\$ In Thousands)	
	FY 1987	FY 1988
	\$102,933	\$105,371

These funds will support both the SOSUS and the SURTASS programs. Specific items to be procured in SOSUS include ship improvement equipment, cable replacement and engineering, trainer hardware and configuration changes, searchlight processing, cable and shore electronics, (FY 1987 \$83.2 million; FY 1988 \$83.9 million). The funds requested in FY 1987 for SURTASS will procure three shore electronic units and field changes and modifications. The FY 1988 funds requested will procure one shore electronic unit, two backup arrays, and field changes and modifications (\$19.7 million in FY 1987; \$21.5 million in FY 1988).

Electronic Warfare Equipment (P-1 Line Items 78-86)

	(\$ In Thousands)	
	FY 1987	FY 1988
	\$198,056	\$267,749

The FY 1987 and FY 1988 Electronic Warfare procurement provides the Fleet with systems that have the capability of detecting overt electromagnetic emissions through passive means. Specific systems to be procured include the AN/SLQ-32, a family of modular shipborne electronic warfare equipments to be installed in most combatants and auxiliaries in the surface Navy. \$76.0 million in FY 1987 will procure three AN/SLQ-32(V)3 systems and Electronic Warfare Improvements as follows: Direction Finding (DF), Accuracy Improvement (Band 1), Electronic Support Measures (ESM) Sensitivity Improvements (Band 1 and 3), Band 3 ESM HAT, Antenna Enclosure Improvements, and Electromagnetic Interference (EMI) Improvements. \$97.8 million in FY 1988 will procure six AN/SLQ-32(V)3 systems, and EW Improvements. The AN/SLQ-17 system is for use on CV and CVN class ships to offer a viable and effective defense against simultaneous multi-threat, multi-axis Anti-Ship Missile (ASM) attack. \$14.2 million in FY 1987 provides for procurement of upgrades, Engineering Change Proposals (ECP's), depot maintenance equipment and one Passive AN/SLQ-17A(V)2 system to increase the ESM capability and prepare for Selected Restricted Availability (SRA) installation of AN/SLQ-32 based improved active subsystem. \$30.8 million in FY 1988 provides for procurement of additional Engineering Change Proposals. The AN/MLR-1H is a tactical ESM receiver for use on-board SSN and CV/CVN class ships. \$4.3 million budgeted in FY 1987 and \$5.5 million budgeted in FY 1988 provides for the procurement of field change kits, depot upgrades, engineering change proposals, and direction finding (DF) Antenna Subsystems for CV/CVN class ships. Fleet Electronic Warfare Support Group (FEWSG) provides a realistic air, surface, and

subsurface threat environment for Fleet Training and support of Operational Test and Evaluation of Electronic Systems. \$1.6 million budgeted in FY 1987 and \$1.4 million budgeted in FY 1988 provides for the procurement of signal density enhancement for AN/ULQ-13(V) vans. \$22.6 million budgeted in FY 1987 and \$48.2 million budgeted in FY 1988 are for procurement of Scenario Generators, High Frequency (HF) Communications Simulators, RADAR Jammer II Buys, and E/F Band Simulators. \$10.2 million budgeted in FY 1987 and \$11.2 million budgeted in FY 1988 are for procurement of AN/ULQ-16 Video Processors, Reprogrammable Library terminals/processors/printers, Land Mobile systems, and the Data Link Vulnerability Assessment Project (DVAL). \$69.2 million budgeted in FY 1987 and \$67.3 million budgeted in FY 1988 are for procurement of Chaff Buys, Active Electronic Buys (AEB), and DLF-1/2 buoys.

Reconnaissance Equipment (P-1 Line Items 87-91)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$77,526	\$158,124

This funding will provide the tactical capability to detect, locate and identify hostile targets at long range and to input this information into the ship's Tactical Data System. \$26.1 million budgeted in FY 1987 and \$32.5 million budgeted in FY 1988 are for continued procurement of OUTBOARD Phase I and OUTBOARD Phase II suites. \$36.7 million budgeted in FY 1987 and \$59.0 million budgeted in FY 1988 are for procurement of Combat Direction Finding Systems. \$5.2 million budgeted in FY 1987 and \$9.7 million budgeted in FY 1988 are for procurement of Combat Cryptologic Support Consoles (CCSC). \$9.6 million budgeted in FY 1987 and \$10.6 million in FY 1988 are for procurement of equipment for intelligence centers for the Aircraft Carriers (CV). Fleet Imagery Support Terminals (FIST), and Analyst Display Terminals (ADT). \$46.4 million budgeted in FY 1988 is for procurement of a Battle Group Passive Horizon Extension System.

Submarine Surveillance Equipment (P-1 Line Items 92-97)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$9,663	\$86,477

The funding requested provides for special equipment in support of submarine surveillance operations. \$1.2 million budgeted in FY 1987 and \$9.0 million budgeted in FY 1988 are for procurement of automatic test equipment, repair test stations, and test program sets for the AN/MLQ-4(V) system level overhaul depot facility. \$37.7 million budgeted in FY 1988 is for procurement of thirteen AN/BRD-9 direction finding subsystems and four AN/BLD-9 improved acquisition systems which will provide improved performance of SSN-688 Class submarines against long range targets. \$3.6 million budgeted in FY 1987 and \$21.9 million budgeted in FY 1988 are for procurement of modifications to the existing AN/MLQ-4(V) installed on the SSN-637 Class submarines and five Mini-N-Suite signal intelligence augmentation modification kits, both installed on the SSN-637 Class submarines. \$14.5 million budgeted in FY 1988 is for procurement of seven AN/BLD-1 direction

finding systems which will provide improved performance on SSN-688 Class submarines against long range targets. \$4.9 million budgeted in FY 1987 and \$3.5 million in FY 1988 are for the procurement of unique equipments that are maintained in limited quantities at Submarine Surveillance Equipment Program Support facilities for use on board nuclear attack submarines as well as for procurement of improved power supplies for AN/WLR-8(V)2 systems.

Other Shipboard Electronic Equipment (P-1 Line Items 98-106)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$323,716	\$323,070

\$104.7 million budgeted in FY 1987 and \$120.3 million budgeted in FY 1988 provides for procurement of improvements to the Navy Tactical Data System (NTDS) which permits major warships rapid integration of ship sensor information, analysis and display of tactical information and designation of weapon systems to force threats. \$161.3 million budgeted in FY 1987 and \$126.8 million budgeted in FY 1988 are for electronic equipment for the TRIDENT Training Facility (TRITRAFAC) and the TRIDENT Refit Facility (TRIREFAC). \$4.2 million budgeted in FY 1988 is for procurement of 119 state-of-the-art OMEGA receiving sets (LTN-211). This request also includes resources to support procurement of equipment for the Armed Forces Radio and Television Service (AFRTS) which operates radio and television outlets for the shipboard information, training and entertainment of United States servicemen and their dependents at sea or ashore (FY 1986 \$5.1 million; FY 1988 \$6.5 million). \$2.1 million budgeted in FY 1987 and \$6.5 million budgeted in FY 1988 are for procurement of mine hunting sonars for Minesweeping Boats (MSBs), route survey sonars for Ocean-going Minesweepers (MSOs), and precise navigation equipment. \$24.9 million budgeted in FY 1987 and \$16.0 million budgeted in FY 1988 are for procurement of shipboard and manpack receiver equipment for the NAVSTAR Global Positioning System (GPS), a joint service program which will provide a continuous, world-wide three-dimensional positioning/navigation capability to the operational forces. \$4.3 million budgeted in FY 1987 and \$6.2 million budgeted in FY 1988 are for procurement of the AN/USQ-74, a Link II Data Terminal Set. \$17.2 million budgeted in FY 1987 and \$18.1 million budgeted in FY 1988 are for procurement of six Tactical Flag Command Centers (1FCC) (three in FY 1987 and three in FY 1988) which support the tactical commander by receiving and displaying information relative to the current tactical situation. \$4.0 million budgeted in FY 1987 and \$18.6 million budgeted in FY 1988 are for procurement of equipment for the Command and Control Processor (C² Processor) which is the interface between tactical digital data link equipment.

Training Equipment (P-1 Line Items 107 and 108)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$5,035	\$2,642

The FY 1987 and FY 1988 requests are for procurement of equipment to satisfy initial training requirements developed through the Navy Training Plan process which will give the Navy the capability to train officer, operator and maintenance personnel on new or significantly modified equipment for which no navy training is currently available. It also satisfies requirements to expand the Navy training capability on existing equipment to meet heavier needs for trained personnel in the Fleet (FY 1987 \$5.0 million; FY 1988 \$2.6 million).

Aviation Electronic Equipment (P-1 Line Items 109-118)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$120,676	\$134,877

The FY 1987 and FY 1988 request for Aviation Electronic Equipment provides for procurement of electronic equipment to support Naval and Marine aviation shore activities, shipboard aircraft control equipment and secure identification systems. The Marine Air Traffic Control and Landing System (MATCALS) will provide a fully automatic air traffic control and landing system. \$29.6 million budgeted in FY 1987 and \$32.4 million budgeted in FY 1988 are for procurement of five Air Traffic Control (ATC) subsystems in each fiscal year, plus replacement equipment for the AN/TSQ-18 Landing Control Central (LCC). The Shipboard Air Traffic Control (SATC) program will improve air traffic control operations in the Fleet. SATC funding includes \$12.9 million in FY 1987 and \$16.7 million budgeted in FY 1988 for procurement of 17 AN/SPN-43 solid state radar field changes, 13 AN/UYK-44 computers to replace AN/UYK-20's in the Carrier Air Traffic Control Centers-Direct Altitude Identification Readout (CATCC-DAIR), and three Amphibious Air Traffic Control (AATC-DAIR) systems for LPH's and LHA's. \$23.1 million budgeted in FY 1987 and \$21.3 million budgeted in FY 1988 are for procurement of seven AN/SPN-46 systems to replace the aging AN/SPN-42A Automatic Carrier Landing Systems. \$9.9 million budgeted in FY 1987 and \$6.6 million budgeted in FY 1988 are for procurement of 17 Tactical Air Navigation (TACAN) systems for Navy ships. \$9.4 million budgeted in FY 1987 and \$10.3 million budgeted in FY 1988 are for procurement of a variety of field changes required to correct deficiencies in the Air Traffic Control Radar Beacon, Identification Friend of Foe, MK XII System (AIMS), field changes, 200 AN/UPM test sets, 70 Mode IV evaluators, 57 hand held test sets and 30 wideband antennas. The Air Station Support Equipment Program addresses air traffic control requirements and enhances flight safety at Navy and Marine Corps Air Stations. The Air Station Support equipment budget request includes \$15.1 million budgeted in FY 1987 and \$12.9 million budgeted in FY 1988 for Fiber Optic Cable Systems, 19 Landing Signal Officer (LSO) and Runway Duty Officer (RDO) shelters, 66 AN/GRC-211 VHF

Transceivers, 5 AN/TPN-30 Radar Sets, and various communication system replacements. \$1.5 million budgeted in FY 1987 and \$1.6 million budgeted in FY 1988 are for procurement of 30 Open Planar Array Antennas for operational Radar Air Traffic Control Facilities (RATCF). \$6.2 million budgeted in FY 1987 and \$7.0 million budgeted in FY 1988 are for procurement of 26 Microwave Landing Systems (MLS). \$22.1 million budgeted in FY 1987 and \$26.0 million budgeted in FY 1988 are for procurement of Fleet Area Control and Surveillance Facilities (FACSFAC) communication modernizations, FACSFAC Air Control Tracking System (FACITS) modifications, increased hardware/software maintenance capability and upgrade of the Joint Air Reconnaissance Control Center (JARCC).

Other Shore Electronic Equipment (Command and Control) (P-1 Line Items 119-122)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$46,065	\$36,654

These funds will procure electronic equipment for replacement of obsolete equipment of the Navy Space Surveillance System, and unaltered real-time detection of non-radiating satellites and other objects which pass through multistatic continuous wave radar beams (FY 1987 \$3.1 million; FY 1988 \$9.0 million). This request includes resources to support the Space System Processing System procurement of special computer hardware and software necessary to improve information processing and generation of highly classified reports for use by Operational Navy Commands (FY 1987 \$2.2 million; FY 1988 \$2.2 million). The Navy Command and Control System (NCCS) Ashore program (\$39.6 million in FY 1987 and \$25.4 million in FY 1988) provides for the coordination and integration of shore based command centers and their respective systems; resources will procure baseline command center upgrades, communications hardware, satellite communications equipment, correlation upgrade equipment, replacement equipments, and formatted message origination systems. \$1.3 million budgeted in FY 1987 also provides for procurement of Radar System Simulation Units for the Multiple Unit Link Eleven Test and Operational Training System (MULTOTS), a transportable system to validate Link II interoperability on Tactical Data Systems equipped ships and aircraft.

Other Shore Electronic Equipment (Miscellaneous) (P-1 Line Items 123-130)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$67,636	\$225,697

The \$7.9 million budgeted in FY 1987 and \$7.9 million budgeted in FY 1988 is for the Radiation Detection Indication and Computation Equipment Program (RADIAC) which procures instruments to detect and measure nuclear and ionizing radiation and convert these measurements into meaningful terms so that Navy personnel can adequately control personnel exposure to those radiations. Funds in the amount of \$28.3 million in FY 1987 and \$22.6 million in FY 1988 are for the procurement of General Purpose Electronic Test Equipment (GPETE) for initial outfitting of new or modified Fleet and shore electronic equipments. Funding of \$4.8

million in FY 1987 and \$6.3 million in FY 1988 is for procurement of equipment required for the Integrated Combat System Test Facility (ICSTF), located at San Diego, California, the only permanent Navy test facility for integrated shipboard combat system certification and continuation engineering for modifications of combat systems in existing ships. Funding of \$8.2 million in FY 1987 and \$9.5 million in FY 1988 is for procurement of a new generation of signal generators and oscillator calibrators capable of calibrating up to 18 GHz to support test equipment for FFG-7 and DD-963 class ships and TRIDENT submarines and up to 40 GHz to support test equipment for SSM-637 and SSM-688 class submarines. Funding of \$7.4 million in FY 1987 and \$9.3 million in FY 1988 is for procurement of emergency field change kits and hardware devices to solve Electromagnetic Interference (EMI) problems in electronic systems and equipments throughout the operating forces. Funding of \$2.3 million in FY 1987 and \$165.0 million in FY 1988 is for procurement of two wide area surveillance systems (Over the Horizon Radars) to provide targeting information to tactical commanders afloat. The FY 1987 and FY 1988 requests also include resources to support procurement of replacements for deteriorating and obsolete management equipment (FY 1987 \$8.7 million; FY 1988 \$5.2 million).

Shipboard Communications (P-1 Line Items 131-137)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$67,607	\$65,004

Funding in the amount of \$11.7 million budgeted in FY 1987 and \$10.2 million budgeted in FY 1988 are for the High Frequency (HF) Shipboard Communications program to update the capabilities of the current HF Communications Systems. FY 1987 and FY 1988 funds will procure AN/URT-23 transmitters, AN/TRQ-35 HF Sounders, and commence procurement of the OA-9122/SRC antenna coupler group. Funding of \$9.4 million in FY 1987 and \$9.4 million in FY 1988 is for procurement of AN/WSC-3 (LOS) radios, an Ultra High Frequency (UHF) transceiver which provides secure tactical voice communications aboard line-of-sight ships. The \$2.0 million budgeted in

FY 1987 is for procurement of AN/SRC-47 Flight Deck Systems which provide a secure voice communications system for key personnel involved in aircraft operational support functions. Funds in the amount of \$8.3 million in FY 1987 and \$4.0 million in FY 1988 are for procurement of portable specialized radios to support the unique air, sea and land environment of the Explosive Ordnance Disposal (EOD) and Navy Special Warfare (NSW) missions. Funding of 18.0 million in FY 1987 and \$10.9 million in FY 1988 is for procurement of communication systems to automate message processing and distribution functions aboard ship. Funding of \$13.5 million in FY 1987 and \$4.7 million in FY 1988 is for procurement of multicoupler interface components, antennas and various other items for the integration and completion of communication suites aboard ship. Finally, funding of \$4.7 million in FY 1987 and \$4.6 million in FY 1988 is for procurement of upgraded communication packages for flag configured logistic support ships and equipment for the Military Sealift Command/Ready Reserve Fleet (MSC/RRF).

Submarine Communications (P-1 Line Items 138-145)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
	\$84,384
\$91,546	

These resources will procure communications equipment for Command and Control of the Fleet Ballistic Missile (FBM) and Attack Submarine Forces. The \$30.8 million budgeted in FY 1987 is for procurement of equipment in support of the Extremely Low Frequency Communication Program (Project ELF), a shore-to-ship communications system which will provide the capability to communicate with submarines at speed and depth. Funds in the amount of \$17.8 million in FY 1987 and \$18.8 million in FY 1988 are for procurement of Low Frequency/Very Low Frequency (LF/VLF) communications hardware, upgrades and high efficiency amplifiers. Funding of \$1.1 million in FY 1987 is for procurement of new precise frequency time standards. Funding of \$5.9 million in FY 1987 and \$5.2 million in FY 1988 is for procurement of Enhanced VERDIN processors. In addition, \$4.8 million budgeted in FY 1987 and \$2.3 million budgeted in FY 1988 are for procurement of the 1600 Chips Per Second (CPS) Kits, Minimum Essential Emergency Communication Network (MEECN) modules and noise reduction circuits. These requirements are part of the VERDIN VLF communications system. Funding of \$2.2 million in FY 1987 and \$1.6 million in FY 1988 is for procurement of equipment to enhance the capabilities of the existing SSN-688 class radio room. Funding of \$27.9 million in FY 1987 and \$28.8 million in FY 1988 is for procurement of submarine communications equipment consisting of antennas, mast assemblies and buoyant cable antennas. Funding of \$.9 million in FY 1987 is for procurement of modular data collection and recording equipment to measure FBM submarines communication performance. In addition, funding of \$27.6 million in FY 1988 is for procurement of 90 Compact Very Low Frequency (CVLF) receiver terminals to provide miniaturized VLF digital data processing and receiving on SSN Class Submarines.

Satellite Communications (P-1 Line Items 146 and 147)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$43,523	\$56,383

FY 1987 and FY 1988 Satellite Communications procurements provide for adequate command, control and communications with ships and aircraft through the Ultra High Frequency (UHF) and Super High Frequency (SHF) bands. Funding of \$43.5 million in FY 1987 and \$56.4 million in FY 1988 is for procurement of Demand Assignment Multiple Access (DAMA) systems, Officer in Tactical Command Information Exchange Subsystems (OTCIXS) equipment, Tactical Data Information Exchange Subsystems (TADIXS) equipment, Satellite Communications equipment for submarines operating in the arctic regions, Submarine Satellite Information Exchange Subsystems (SSIXS), Combat Direction Finding Communications equipment, Front End Processors for the Navy Modular Automated Communications Systems (NAVMACS) and modification kits for upgrading the Defense Satellite Communications terminals, AN/MSC-64 Navy Terminals, AN/TSC-96 terminals and equipment operating with the new KG-84A cryptologic equipment.

Shore Communications (P-1 Line Items 148-159)

	(\$ In Thousands)
	<u>FY 1987</u>
	<u>FY 1988</u>
	\$69,436
	\$83,760

Funding of \$6.7 million budgeted in FY 1987 and \$7.1 million budgeted in FY 1988 represents the Navy share of a Joint Service modernization of the Joint Chiefs of Staff (JCS) Communications equipment. Funding of \$1.5 million in FY 1987 and \$1.2 million in FY 1988 is for procurement of emergency generators and uninterruptable power systems (UPS) for installation at various Naval Communication activities worldwide. Funding of \$11.3 million in FY 1987 and \$14.8 million in FY 1988 is for procurement of equipment and field change kits to replace obsolete High Frequency (HF) assets used to enable Naval Telecommunications to be viable in the absence of satellite communications. Funding of \$33.8 in FY 1987 and \$35.5 in FY 1988 is for procurement of Unit Level Circuit Switches (ULCS) and Advanced Narrowband Digital Voice Terminals (ANDVT). Funding in the amounts of \$1.1 million in FY 1987 and \$1.0 million in FY 1988 are for procurement of manual suite upgrades which will provide functional standardization of Technical Control Facilities. Funding of \$1.1 million in FY 1987 and \$2.0 million in FY 1988 is for procurement of AN/FCC-100's which will convert the worldwide Defense Communications system to all digital terminals. Funding of \$.1 million in FY 1987 is for procurement of Ashore Mobile Contingency Vans (AMCC), a transportable platform for deployment to provide contingency communications. Funding of \$3.7 million in FY 1987 and \$3.3 million in FY 1988 are for procurement of replacement and upgrade of microwave facilities in the worldwide Defense Communication System (DCS). Funding of \$9.7 million in FY 1987 and \$14.8 million in FY 1988 is for procurement of Local Digital Message Exchange (LDMX) terminals, Remote Information Exchange Terminals (RIXT) and Automatic Digital Network (AUTODIN) Standard Remote Terminals (SRT). Funding of \$.4 million in FY 1987 and \$.4 million in FY 1988 is for procurement of various communications equipment which supports the Worldwide Military Command and Control System (WMCCS). Funding of \$2.1 million in FY 1987 and \$3.5 million in FY 1988 is for procurement of low dollar value items to support numerous Naval Shore Telecommunications programs.

Cryptographic Equipment (P-1 Line Items 160-177)

	(\$ In Thousands)
	<u>FY 1987</u>
	<u>FY 1988</u>
	\$158,914
	\$195,066

The FY 1987 and FY 1988 requests will procure sufficient secure voice equipment to provide secure voice protection to an additional share of Navy's identified critical narrowband/wideband secure voice requirements. Funding of \$17.0 million in FY 1987 and \$15.3 million in FY 1988 is for procurement of the Single Audio System (SAS), a system where all shipboard radio voice subscribers have access to either a plain or cryptographically covered circuit, on an as required and programmed basis. The SAS will provide manual voice switching suites for smaller ships and an automated switching suite for larger ships. Both

switching systems utilize a switch which is modularly expandable to suit the needs of various platforms. Funding of \$13.6 million in FY 1987 and \$29.9 million in FY 1988 is for procurement of TSEC/KY-71/72 equipments which will provide subscriber expansion and improvement over the secure voice capability presently provided by AUTOSEVOCOM I. New features include digital transmission, end to end secure voice with conferencing, better voice quality, and lower bit rate. Funding of \$27.9 million in FY 1987 and \$33.5 million in FY 1988 is for procurement of the TSEC/KG-84, a general purpose key generator capable of satisfying a wide variety of requirements and is designed to serve as the future standard link encryption device for low to medium speed record and/or data systems. Funding of \$20.4 million in FY 1987 and \$30.2 million in FY 1988 is requested for TSEC/KY-57/58, a wideband, push-to-talk (half-duplex) tactical speech security equipment for use in VHF/UHF communications. Funding of \$6.3 million in FY 1987 and \$5.8 million in FY 1988 is for procurement of the TSEC/KYV-5, the Cryptographic module for the Advanced Narrowband Digital Voice Terminal (ANDVT) which satisfies requirements for secure narrowband communications which cannot be met by existing equipment. Funding of \$8.8 million in FY 1987 is for procurement of the TSEC/KW-46 which will secure record and data communications for the Navy Fleet Broadcast System. Funding of \$1.2 million in FY 1987 and \$1.4 million in FY 1988 is for procurement of the TSEC/KG-81, a full-duplex, high speed digital data encryption system for bulk encryption of the most vital DCS links. Funding of \$5.0 million in FY 1987 is for procurement of the TSEC/KG-44 equipments for the Defense Meteorological Space Program. Funding of \$7.9 million in FY 1988 is for procurement of the TSEC/KG-58/KGV-6, required to secure Marine Corps Ultra High Frequency Multi-Channel Communications in the Position Location and Reporting System (PLRS). Funding of \$14.8 million in FY 1987 and \$15.4 million in FY 1988 is for procurement of the TSEC/KGV-11, a general purpose communications security module designed for use with wide spectrum communications. Funding of \$12.2 million in FY 1987 and \$15.5 million in FY 1988 is for procurement of items of relatively low dollar value to meet special operational requirements. Funding of \$2.5 million in FY 1987 is for procurement of the KGR-96 which provides encryption/decryption for a satellite data link. Funding of \$28.4 million in FY 1987 and \$34.5 million in FY 1988 is for procurement of COMSEC devices for the TRI-TAC switches. Funding of \$4.4 million in FY 1987 and \$4.4 million in FY 1988 is for procurement of TEMPEST test equipment. Funding of \$5.5 million in FY 1987 and \$5.5 million in FY 1988 are for procurement of the KYK-13 battery operated transfer devices and the KOI-18 which is a lightweight battery operated device for reading a light-level punched type.

Cryptologic Equipment (P-1 Line Items 178-183)

	(\$ in Thousands)	
	<u>FY 1987</u>	<u>FY 1988</u>
	\$12,008	\$24,504

These resources provide equipment to support Tactical Cryptologic missions and functions. Funding of \$8 million in FY 1987 and \$2.0 million in FY 1988 continues procurement of the Carry-on Special Intelligence Communications equipments, and continues procurement of the Special Intelligence Ship-Shore Teletype replacement equipments. Funding of \$1.6 million in FY 1987 and \$9.7 million in FY 1988 initiates

and/or continues procurement of Carry-on Tactical Cryptologic ancillaries, equipments and systems for the Ships Signals Exploitation Space (SSES) aboard U.S. Navy combatants. Funding of \$5.6 million in FY 1987 and \$7.7 million in FY 1988 continues procurement of various replacement and cryptologic training equipments for use at U.S. Navy shore sites, training command, and/or aboard U.S. Navy combatants. Funding of \$1.2 million in FY 1987 and \$2.1 million in FY 1988 continues procurement of cryptologic systems for use at 81 U.S. Navy ashore reserve training sites. Funding of \$.8 million in FY 1987 and \$1.0 million in FY 1988 continues procurement of cryptologic systems for use at U.S. Navy shore sites to ensure that cryptologic technicians maintain proficiency in various languages and manual Morse. Funding of \$2.0 million in FY 1987 and \$2.1 million in FY 1988 continues procurement of cryptologic support systems to be installed at various worldwide shore sites and are used in conjunction with afloat cryptologic systems to ensure that accurate tactical data bases are maintained.

Other Electronic Support (P-1 Line Items 184-186)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$8,099	\$5,252

This funding will procure critical repairable equipments in support of planned maintenance schedules and corrective maintenance actions for the FFG (LO-MIX) and DD (Engineering Operation Cycle) Class ships; and dedicated test stations, industrial plant equipment, test jigs and fixtures for selected depot rework facilities in support of the new maintenance strategies for the FFG and DD (EOC) Class ships (FY 1987 \$7.1 million; FY 1988 \$5.3 million). In addition, funding of \$1.0 million in FY 1987 is for procurement of war reserve communication equipment, Radiac and ancillary equipments for Advanced Base Functional Components (ABFC's).

Spares and Repair Parts (P-1 Line Item 187)

FY 1987 and FY 1988 funds for spares and repair parts were transferred to Budget Activity 8 beginning in FY 1986.

Budget Activity 3. AVIATION SUPPORT EQUIPMENT
SUMMARY OF BUDGET PLAN
(In Thousands)

	FY 1985 ACTUAL	FY 1986 ESTIMATE	FY 1987 ESTIMATE	FY 1988 ESTIMATE	JUSTIFICATION PAGE
SONOBUOYS	325,552	307,817	235,482	222,792	34
GENERAL PURPOSE BOMBS	152,910	503,550	252,625	342,675	35
AIR LAUNCHED ROCKETS	44,565	106,304	57,687	45,220	36
AIRCRAFT MACHINE GUN AMMUNITION	26,216	13,841	21,180	26,463	37
BIGEYE CHEMICAL WEAPON GATOK	---	---	28,533	40,469	36
MISCELLANEOUS ORDNANCE	24,309	---	42,585	34,565	37
AND SUPPORT	91,067	129,144	89,456	132,556	37
WEAPONS RANGE SUPPORT EQUIPMENT	69,367	69,965	66,451	61,615	37
AIRCRAFT LAUNCHING AND RECOVERY EQUIPMENT	30,933	25,860	34,962	47,585	38
AIRCRAFT REARMING EQUIPMENT	20,006	54,730	58,630	51,637	38
AIRBORNE MINE COUNTER- MEASURES EQUIPMENT	11,383	27,094	32,304	51,575	39
LAMPS MK III SHIPBOARD EQUIPMENT	55,453	49,893	34,995	41,663	39
OTHER AVIATION SUPPORT	8,976	53,266	48,244	57,967	39
SPARES AND REPAIR PARTS	23,131	---	---	---	40
TOTAL BUDGET PLAN	931,874	1,141,428	963,514	1,143,586	

Budget Activity 3. AVIATION SUPPORT EQUIPMENT

	(\$ In Thousands)
FY 1988 Estimate	\$ 143,586
FY 1987 Estimate	\$ 963,514
FY 1986 Estimate	\$ 1,141,428
FY 1985 Actual	\$ 551,874

Purpose and Scope of Work:

Budget Activity 3 finances the procurement of all air-delivered ordnance required for Naval forces and Marine Air Wings, except guided missiles funded under the Weapons Procurement, Navy (WPN) appropriation. It also includes air launched anti-submarine warfare (ASW) sensors, general support equipment associated with aircraft and other aviation support which includes ground electronics equipment, aircraft launching and retrieving equipment, photographic equipment, reconnaissance and electronic warfare processing and analysis equipment and miscellaneous other categories.

Justification of Funds.

Sonobuoys (Includes P-1 Line Item Nos. 188-195)

	(\$ In Thousands)
FY 1987	
FY 1986	
	\$235,482
	\$222,792

The FY 1987 and FY 1988 Sonobuoy procurement has been computed considering the number of ASW carrier air groups and shore based ASW patrol squadrons to be supported, actual and planned peace-time usage for these forces and the necessary training allowance requirements. User aircraft include the S-3A, P-3, SH 2U and SH-3 series. Specific sonobuoys to be procured in FY 1987 and FY 1988 include the AN/SSQ 36 Bathythermograph Sonobuoy, an air dropped bathythermograph transmitting set that provides a vertical water temperature profile (FY 1987, \$4.7 million, FY 1988, \$4.6 million), the AN/SSQ-53 (DIFAR), a passive directional sonobuoy used during the target localization phase of the Air ASW mission (FY 1987, \$100.6 million, FY 1988, \$75.4 million), the AN/SSQ-57 (Special Purpose) Sonobuoy, a calibrated AN/SSQ 41 sonobuoy used to obtain acoustic and sound pressure level data and to measure ambient noise (FY 1987, \$2.9 million, FY 1988, \$3.2 million); the AN/SSQ-62 (DICASS) Sonobuoy, an active directional sonobuoy (FY 1987, \$35.3 million; FY 1988, \$21.3 million), the AN/SSQ-75 expendable reliable acoustic path sonobuoy (ERAPS), an air dropped, expendable, deep water active detection system (FY 1988, \$14.4 million) and the AN/SSQ-77 (VLAD) Sonobuoy, a passive directional sonobuoy utilizing a line array of omni-directional hydrophones and a DIFAR element. The directional beam patterns are formed from the line array to discriminate against noise and the DIFAR enables determination of the azimuthal bearing of detected sound

(FY 1987, \$61.4 million; FY 1988, \$70.3 million). Funds are also required for procurement of the AN/SSQ-86 (DLC) Sonobuoy, a one-way acoustic communications sonobuoy (FY 1987, \$2.8 million, FY 1988, \$1.6 million) and the Low Cost Sonobuoy program, an effort to streamline design specification while using high volume production techniques in order to arrive at a unit production cost goal of \$30 in quantities of 500,000 units per year (FY 1987, \$26.6 million; FY 1988, \$26.7 million). The FY 1987 and FY 1988 requests also include funding to support procurement of Signal Underwater Sound (SUS) devices which are expendable, high energy acoustic sources used for many applications including bottom mapping, long range signal transmission and position fixing (FY 1987, \$1.2 million, FY 1988, \$1.3 million).

General Purpose (G.P.) Bombs (P-1 Line Item Nos. 200-204, 209)

	(\$ In Thousands)	
	FY 1987	FY 1988
	\$252,825	\$345,675

The funding request is for the procurement of the MK-83 thermally protected bomb, the BSU-85 Air Inflatable Retarder Fin for the MK-82 G.P. Bomb, the FMU-139/B electronic fuze used on MK-80 series G.P. bombs, the MK-15/BSU-86 retard fin and the BSU-33 high drag mode fin both for the MK-82 G.P. Bomb. \$27.1 million is budgeted in FY 1987 (\$30.0 million in FY 1988) for procurement of the MK-83 thermally protected G.P. Bomb. In FY 1987, \$18.7 million (\$15.5 million in FY 1988) is budgeted to procure the BSU-85 Air Inflatable Retarder Fin. \$54.7 million is budgeted in FY 1987 (\$52.0 million in FY 1988) will procure the FMU-139/B electric fuze. \$10.0 million budgeted in FY 1987 (\$10.7 million in FY 1988) is for the procurement of the DSU-30 proximity sensor. \$26.6 million is requested in FY 1988 for procurement of PBX fill for the MK-82 G.P. Bomb. The remaining \$16.4 million in FY 1987 (\$24.3 million in FY 1988) is requested to procure various types of fins for these G.P. Bombs as well as miscellaneous component parts and production support. \$44.7 million in FY 1987 (\$83.3 million in FY 1988) is for the procurement of SKIPPER, a Rocket Powered Standoff Laser Guided MK-83 Bomb. \$6.3 million in FY 1987 (\$8.3 million in FY 1988) is for Paveway II Laser Guided Bomb Kits, which will be used to provide terminal guidance to the MK-82 general purpose bomb. \$35.3 million in FY 1987 (\$39.9 million in FY 1988) is for WALLEYE, an air-to-surface TV guided glide bomb. WALLEYE funds will procure extended range (ER) and data link (DL) hardware for the conversion of WALLEYE I weapons to the ER/DL configuration. \$8.5 million in FY 1987 (\$8.7 million in FY 1988) is requested for procurement of FMU-140 proximity fuzes to retrofit the existing inventory of ROCKEYE II MK 20 500-lb free fall cluster bombs. The Practice Bombs procurement is \$5.2 million in FY 1987 (\$14.1 million in FY 1988) for the MK-76 and BDU-48 Practice Bombs, \$11.8 million in FY 1987 (\$26.5 million in FY 1988) for the MK-60 series inert bomb, \$1.1 million in FY 1987 (\$2.5 million in FY 1988) for Cartridge Simulant Units (CXU-3, CXU-4 and MK-4 smoke signals), \$5.2 million in FY 1987 (\$5.2 million in FY 1988) for ROCKEYE Practice Bomb, and \$3.1 million in FY 1987 (\$3.8 million in FY 1988) for production support services.

Air Launched Rockets (P-1 Line Item Nos. 205-206)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$57,687	\$49,226

This category consists of the ZUNI 5.0" Rocket and 2.75" Rocket systems. The ZUNI and 2.75" rocket systems are air-to-ground weapons consisting of a variety of warheads and are fired from a four-round cylindrical launcher. Both rocket systems are cleared for use on the following USAF aircraft: A4, A6, A7, F4, F/A 18, AH1, AV8 and OV10. Funding of \$26.3 million in FY 1987 and \$27.1 million in FY 1988 is requested for procurement of the air-to-ground Zuni 5.0" Wrap-around Fin Rocket system. In addition, funding of \$31.4 million in FY 1987 and \$21.4 million in FY 1988 is budgeted for the 2.75" Folding Fin Rocket system.

Aircraft Machine Gun Ammunition (P-1 Line Item No. 208)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$21,180	\$26,463

This category includes procurement of 20mm and 25mm ammunition used with various aircraft (A-4, A-6, A-7, F-8, F-14 and AV-8) gun systems. Funding of \$17.5 million in FY 1987 and \$21.0 million in FY 1988 is requested for procurement of 20mm practice gun ammunition used with various aircraft (A-4, A-6, A-7, F-8, and F-14) gun systems for fleet training to maintain pilot proficiency. Funding of \$5.5 million in FY 1987 and \$2.9 million in FY 1988 is to procure 25mm HEI and API service ammunition for war reserve requirements for the AV-8. Funding of \$4.4 million in both FY 1987 and FY 1988 is provided for container procurement. Included in this program is \$1.5 million in FY 1987 and \$1.4 million in FY 1988 for production/engineering support of ammunition procurements. In addition, funding of \$1.2 million is provided in FY 1987 and \$0.8 million in FY 1988 for a product improvement effort to increase the safety and reliability of the 25mm fuze in addition to reducing its cost.

BIGEYE Chemical Weapon (P-1 Line Item No. 215)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$28,533	\$40,489

The BIGEYE is an air launched binary spray chemical bomb. It generates and delivers a persistent nerve agent from two non-toxic chemicals. Bigeye will provide enhanced safety and reliability on the existing inventory of aging chemical weapons. The FY 1987 request of \$28.5 million provides funds for the first year of production of the BIGEYE bomb. Funding in FY 1988 continues the procurement of BIGEYE

GATOR (P-1 Line Item No. 217)

	(\$ In Thousands)
	<u>FY 1987</u>
	<u>FY 1988</u>
	\$42,555
	\$34,565

The \$42.6 million requested in FY 1987 and \$34.4 million in FY 1988 is to procure GATOR CBU-78 500 pound bombs. The GATOR weapon consists of a Mk 7 dispenser that contains a mixture of air-scatterable anti tank and anti-personnel land mines.

Miscellaneous Ordnance and Support (P-1 Line Item Nos. 207, 210-214, 216 218)

	(\$ In Thousands)
	<u>FY 1987</u>
	<u>FY 1988</u>
	\$89,458
	\$132,558

Budgeted procurements will include chaff decoy heads for electronic countermeasures impulse cartridges, and other miscellaneous ordnance and support. Funding of \$1.5 million in FY 1987 and \$1.1 million in FY 1988 is requested for the Parachute Flare Program to procure the SUU 25 parachute flare. Funding of \$25.3 million in FY 1987 and \$18.6 million in FY 1988 are for the procurement of impulse cartridges used for ejecting air-launched weapons and other cartridge actuated devices. Funding of \$7.5 million in FY 1987 and \$8.8 million in FY 1988 is requested for rocket motors and catapults used for ejecting aircrewmembers from disabled aircraft. Funding of \$40.9 million in FY 1987 and \$79.8 million in FY 1988 is requested for procurement of airborne expendable countermeasures including chaff, infrared flares and expendable jammers to meet training and war reserve (mobilization) requirements. Funding of \$2.6 million in FY 1987 and \$8.5 million in FY 1988 is requested for JAT0 (Jet-Assisted Take Off) rockets used to launch aircraft and targets and to propel sleds used in testing. The remaining \$11.3 million in FY 1987 and \$15.3 million in FY 1988 are requested for miscellaneous ordnance, including such items as Marine Location Markers, Smokey SAM Simulator, and Defense Nuclear Agency material.

Weapons Range Support Equipment (P-1 Line Item No. 219)

	(\$ In Thousands)
	<u>FY 1987</u>
	<u>FY 1988</u>
	\$46,431
	\$61,615

Budgeted procurements in FY 1987 include the following (1) \$10.9 million for Aircrew Electronic Warfare Ranges at Fallon, NV and Pinecastle, FL, (2) \$4.0 million for system replacement and modernization.

(3) \$1.4 million for upgrading the West Coast Tactical Aircrew Combat Training System (TACTS) at Fallon, NV; (4) \$4.7 million for upgrading the East Coast Tactical Aircrew Combat Training System (TACTS) at Oceana VA; (5) \$16.5 million for Range Operations Control System Replacement at PHRF and (6) \$2.6 million for an Automated Precision IFF Surveillance System (APIS) at PHRF. Other range equipment requirements in FY 1987 total \$6.3 million. Procurements in FY 1988 include the following: (1) \$9.3 million for a Range Electronic Warfare Simulator (REWS) to be used for surface and air Fleet Electronic Warfare (EW) training exercises, (2) \$17.9 million for Aircrew Electronic Warfare Ranges at Fallon, NV and Pinecastle, FL, (3) \$3.6 million for systems replacement and modernization (4) \$2.6 million for upgrading the West Coast Tactical Aircrew Combat Training System (TACTS) at Fallon, NV; (5) \$10.8 million for a Naval Tactical Data System which provides a complete range safety and operation control picture for the Pacific Missile Range Facility (PHRF) (6) \$3.0 million for procurement of state of the art telecommunications equipment at PHRF and (7) \$3.4 million for an Underwater Tracking Range Computer (UTRC) at St. Croix. Other range equipment requirements in FY 1988 total \$10.9 million.

Aircraft Launching and Recovery Equipment (P-1 Line Item Nos. 220, 222-223)

(\$ In Thousands)	
FY 1987	FY 1988
\$34,962	\$47,569

Catapult, Arresting Gear, and Visual Landing Aids Support for the Navy's aircraft carriers, and the Marine Corps' Expeditionary Airfield (EAF) systems are funded under this program. Funding of \$1.3 million in FY 1987 and \$5.2 million in FY 1988 are for EAF support equipment to correct known deficiencies to modernize the EAF equipment to enhance maintainability, reliability and safety of flight operations, and to keep pace with advanced aircraft requirements. Funding of \$33.7 million in FY 1987 and \$42.6 million in FY 1988 is for the procurement of major catapult, arresting gear and visual landing aids equipment for aircraft carriers and other aircraft capable ships.

Aircraft Rearming Equipment (P-1 Line Item No. 221)

(\$ In Thousands)	
FY 1987	FY 1988
\$38,830	\$51,637

The Aircraft Rearming Equipment program provides funding for armament support equipment (ASE) and weapons support equipment (WSE). ASE is equipment utilized ashore and afloat to load and/or download air launched weapons and to perform maintenance on aircraft installed armament systems. WSE equipment is used ashore and afloat, to transport and perform maintenance on weapon and explosive ordnance components. ASE and WSE is utilized to accomplish the improved rearming rate (IRK) of A-6 EA-6 A-7 F-4, F-14, F-15 and AV-8 aircraft. The use of this equipment permits the rapid weapons loading and reloading of strike aircraft with a minimum number of flight deck personnel (\$38.8 million in FY 1987 and \$51.6 million in FY 1988).

Airborne Mine Countermeasures Equipment (P-1 Line Item No. 227)

	(\$ In Thousands)
FY 1987	FY 1988
\$32,304	\$31,570

This program funds various mine countermeasures equipments operated by KH/CH-53D/NH-53E helicopters. Funding of \$32.3 million requested in FY 1987 will procure airborne mine countermeasures (AMCM) tow, provision kits which provide the necessary removable equipment that allow the helicopter to tow an AMCM system (\$6.7 million), procure three AMCM Detachment Support Equipment sets, and procure ten AN/ALQ 141 Sonar Countermeasure sets (\$12.5 million). \$31.6 million requested in FY 1988 will procure AMCM tow provision kits (\$4.2 million); and three AN/ALQ-166 countermeasures sets (\$26.5 million). Included in FY 1987 and FY 1988 (\$1.9 and \$9.9 million respectively) are modification funds in support of ECPs on AMCM production systems and magnetic minesweeping cable procurement.

LAMPS MK III Shipboard Equipment (P-1 Line Item No. 228)

	(\$ In Thousands)
FY 1987	FY 1988
\$34,553	\$41,663

A multi-appropriation funded program, LAMPS MK III shipboard equipment funded by the OPN appropriation is that equipment which is to be installed in existing ships being backfitted with the LAMPS MK III weapon system. This equipment includes (1) the AN/SSQ 28 (V), an electronic sonar signal processing system, 15 in FY 1987 and 7 in FY 1988; (2) the AN/SKQ-4, a shipboard terminal data transmission device (6 in FY 1987 and 6 in FY 1988); and (3) HLS, the shipboard helicopter landing system for the LAMPS MK III helicopter (6 in FY 1987 and 7 in FY 1988), and support for the FY 1987 and FY 1988 hardware procurements.

Other Aviation Support (P-1 Line Item Nos. 224-226, 229-231)

	(\$ In Thousands)
FY 1987	FY 1988
\$48,244	\$57,967

Funds budgeted include the procurement of Meteorological equipment, Other Photographic equipment, Survival equipment, REWSON, Stock Surveillance equipment, and Other Aviation Support equipment. The Meteorological equipment program finances the procurement of meteorological equipment required by the Navy to gather worldwide weather data, and to rapidly disseminate weather information to Navy and Marine Corps users. The information provided is required for weather forecasting, flight safety and planning fleet operations. The Navy, in addition to providing specialized weather service peculiar to its needs,

coordinates services with the DOD and civilian weather agencies. Meteorological equipment to be procured in both FY 1987 and FY 1988 includes equipment for the high-speed dissemination of weather information and miscellaneous equipment to monitor and report weather conditions at sea and shorebased activities (\$19.0 million in FY 1987 and \$30.7 million in FY 1988). Other Photographic equipment funds the procurement of photographic equipment for all Navy, shore and seaborne photographic laboratories, plus various intelligence activities (\$2.1 million in FY 1987 and \$1.8 million in FY 1988). The Survival equipment program will finance procurement of the PRC-90 1 Aircrew Survival Radio (\$4.1 million in FY 1987 and \$1.6 million in FY 1988), and chemical, biological, radiological personal protective equipment (\$12.4 million in FY 1987 and \$15.1 million in FY 1988) for use by aircrewmembers. The Survival equipment program also includes funds for support equipment, Integrated Logistics Support and Production Support (\$1.1 million in FY 1987 and \$0.8 million in FY 1988). \$1.9 million in FY 1987 and \$2.4 in FY 1988 is requested to buy equipment in support of the REUSCN (Reconnaissance, Electronic Warfare, Special Operations and Naval Intelligence) program. Procurement includes: (1) readout equipment for ship and shore reconnaissance squadrons, (2) surface and subsurface photo collection equipment, (3) analytical equipment to support these collectors and (4) equipment of a photographic and analytic nature for use by ship combatants. The Stock Surveillance equipment line provides funds for procurement of equipment needed to monitor, measure, and assess the condition of current Navy stocks of air-launched missiles and air-launched ordnance and ammunition (\$2.0 million in FY 1987 and \$3.3 million in FY 1988). 50% of the funds support missile inventory quality evaluation (surveillance) efforts and 20% support air-launched ordnance evaluation, including bombs, rockets, and cartridge actuated devices. Material readiness factors such as reliability and serviceability are measured by this effort. In addition, OPN Budget Activity (B.A.) #3 funds the procurement of fleet telemetry equipment which is used to receive, record and analyze missile telemetry performance data providing information to evaluate training/test exercises (\$5.7 million in FY 1987 and \$3.2 million in FY 1988) within the Other Aviation Support equipment program.

Spares and Repair Parts (P-1 Line Item 232)

Beginning with FY 1986, Aviation Support equipment spares and repair parts were consolidated with all other OPN funded spares and transferred to Budget Activity 8.

BUDGET ACTIVITY 4: ORDNANCE SUPPORT EQUIPMENT
SUMMARY OF BUDGET PLAN
(In Thousands)

BUDGET PLAN
(Amounts for Procurement Actions Programmed)

	FY 1985 ACTUAL	FY 1986 ESTIMATE	FY 1987 ESTIMATE	FY 1988 ESTIMATE	JUSTIFICATION PAGE
SHIP GUN AMMUNITION	195,560	219,092	306,356	287,977	42
SHIP GUN SYSTEMS EQUIPMENT	42,366	58,695	40,118	19,590	42
SHIP MISSILE SYSTEMS EQUIPMENT	410,099	506,726	483,617	587,356	43
FBM SUPPORT EQUIPMENT	70,431	146,893	105,318	124,997	44
ASW SUPPORT EQUIPMENT	90,372	132,389	148,767	192,263	44
OTHER ORDNANCE SUPPORT EQUIPMENT	30,125	30,596	36,067	46,795	44
OTHER EXPENDABLE ORDNANCE	127,921	147,089	139,577	204,124	45
SPARES AND REPAIR PARTS	93,691	---	---	---	45

TOTAL BUDGET PLAN	1,060,565	1,241,480	1,259,820	1,463,102	
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Budget Activity 4: Ordnance Support Equipment

(\$ In Thousands)
FY 1988 Estimate - \$1,463,102
FY 1987 Estimate - \$1,259,820
FY 1986 Estimate - \$1,241,480
FY 1985 Actual - \$1,060,565

Purpose and Scope of Work

Funds provided in this budget activity are for Ship Gun Ammunition, Ship Gun and Ship Missile Systems equipment, Fleet Ballistic Missile and Anti-Submarine Warfare Support equipment, Other Ordnance Support equipment, and Other Expendable Ordnance.

Justification of Funds

Ship Gun Ammunition (Includes P-1 Line Items 233-240)

(\$ In Thousands)
FY 1987
\$306,356
FY 1988
\$287,977

The FY 1987 request of \$306.4 million and FY 1988 request of \$288.0 million for Ship Gun Ammunition is for procurement of Three-inch and Five-inch ammunition, 20mm ammunition for the Close-In Weapon System (CIWS), 76mm ammunition, Five-inch Guided Projectile, Sixteen-inch ammunition, and Other Ship Gun Ammunition. The primary mission for the 76mm ammunition is for use against air targets but it is also for use against surface and shore targets. The Sixteen-inch ammunition is for use by battleships against surface and shore targets. The Five-inch guided projectile will provide precisely accurate naval gunfire against targets ashore and at sea, and can be fired from MK-45 Mod 1 Five-inch/54 caliber gun mounts.

Ship Gun Systems Equipment (Includes P-1 Line Items 241-242)

(\$ In Thousands)
FY 1987
\$40,118
FY 1988
\$19,590

The FY 1987 request of \$40.1 million represents \$19.2 million for Gun Fire Control equipment and \$20.9 million for Coast Guard Gun Systems. In FY 1988, \$19.6 million is requested for Gun Fire Control equipment. The funds requested for Gun Fire Control equipment are for the procurement of equipment and ordnance alterations to improve reliability and maintainability of the MK-86 and MK-68/56 surface Gun Fire Control Systems. The funds for Coast Guard Gun Systems procure two MK-92 Mod 1 Fire Control Systems to be installed on modernized WHEC (Hamilton Class) Coast Guard vessels.

Ship Missile Systems Equipment (Includes P-1 Line Items 243-252)

(\$ In Thousands)
FY 1987 FY 1988

\$483,617 \$587,356

The FY 1987 request of \$483.6 million and the FY 1988 request of \$587.4 million are for Ship Missile Systems (SMS) programs. The MK-92 Fire Control System request of \$3.5 million in FY 1987 and \$45.9 million in FY 1988 will provide for improved readiness of the MK-92 system. The FY 1987 and FY 1988 requests of \$13.0 million and \$18.4 million respectively for Harpoon Support equipment will be used to procure Ordnance Alterations, primarily the Block 1C ORDAIT. The TERRIER Support equipment request of \$56.8 million in FY 1987 and \$84.8 million in FY 1988 will provide for modification to the TERRIER Missile Weapon Systems including Fire Control System MK 76, Weapons Direction System MK 14, Guided Missile Launching System MK 10, Communications Tracking Set AN/SYR-1 and Ancillary support equipment. These modifications provide for CG/SM-2 performance improvements (Standard Missile (Extended Range) Block I missile capability), New Threat Upgrade performance improvements (Standard Missile 2 (Extended Range) Block II missile capability) and associated reliability/maintainability/availability improvements in CG-16/26/N9/N25/N35 Class ships. The requests in FY 1987 and FY 1988 of \$47.1 million and \$132.2 million respectively for the TARTAR Support equipment program are for improvements to the CGN/DDG/SM-2 Weapon System including Fire Control Radar Mods, Weapons Direction System (WDS MK-14), AN/SYR-1 Downlink Receiver and Ancillary Modifications to provide capability to fire the SM-2 (MR) missile; and improvements to the Guided Missile Launching System MK 13 Mod 4 on the FFG-7 Class ships. The Point Defense Support equipment request of \$42.3 million in FY 1987 and \$20.6 million in FY 1988 will provide air defense of selected ships by upgrading the NATO SEASPARROW Surface Missile System including modification to fire the RIM-7M Monopulse Missile, and procurement of associated special test equipment and modifications to incorporate specific improvements to increase reliability. The request also includes procurement of the launch system to fire the 5" RAM Missile and follow-on production. The \$1.1 million requested in FY 1987 and \$1.1 million requested in FY 1988 for Airborne ECM/ECCM will provide for equipment used to simulate projected enemy jamming tactics and techniques during Surface Warfare Systems evaluations and Fleet exercises. The AEGIS Support equipment request of \$60.6 million in FY 1987 and \$41.3 million in FY 1988 will provide shore based assets for the AEGIS Combat System/Educational Center to support the Battle readiness of AEGIS Cruisers including AEGIS Combat System Center equipment and AEGIS Educational Center equipment. The Surface TOMAHAWK Support equipment request of \$109.6 million in FY 1987 and \$87.1 million in FY 1988 will procure the Surface Vertical Launching System (VLS), Common Weapons Control Systems (CWCS), and Armored Box Launchers for surface ships. The FY 1987 request of \$11.9 million and the FY 1988 request of \$9.0 million for the Submarine TOMAHAWK Support equipment program will procure modifications to the MK-117 Fire Control System for SSN 637 and 688 Class submarines to provide these submarines the capability to launch the TOMAHAWK Cruise Missile. The Vertical Launch Systems request of \$137.8 million in FY 1987 and \$147.0 million in FY 1988 will provide for installation on DD 963, CG 47, and DDG-41 class ships.

Strategic Platform Support Equipment (Includes P-1 Line Items 253-254)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$105,318	\$124,997

The FY 1987 request of \$105.3 million and the FY 1988 request of \$125.0 million for Strategic Platform Support equipment provides funding for ordnance support, ship alterations and test equipment for the TRIDENT submarine and TRIDENT Refit Facility (TRIREFAC) located at Naval Submarine Base (NSB), Bangor, Washington and numerous support facilities. In addition, funds are requested for the procurement of Strategic Weapon System (SWS) equipment for deployed SSBNs and shore support sites to support the POSEIDON (C-3), TRIDENT I (C-3), TRIDENT II (C-4) and TRIDENT II (C-5) programs and procurement of Strategic Weapons System equipment and ship system ordnance equipment needed to establish the Naval Submarine Base, Kings Bay Georgia.

ASW Support Equipment (Includes P-1 Line Items 255-259)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$148,767	\$192,263

The FY 1987 request of \$148.8 million and FY 1988 request of \$192.3 million is for Anti-Submarine Warfare Support equipment for procurement of the All Digital Attack Center (ADAC), which includes FCS MK 117 increased Display and Conversion for Over the Horizon targeting, Advanced Capability (ADCAP) Torpedo, and FCS MK 117/CCS MK-1 Improvements. In addition, FY 1987 and FY 1988 funding will support procurement of various upgrades to submarines and surface torpedo tube equipment, Anti-Submarine Rocket (ASROC) launchers, various test equipments, and procurement of equipment to support the MK-113 Mod 9 Improvement program. These funds will also support procurement of eight MK-116 Mod 5/6 systems in FY 1987 and seven in FY 1988, as well as provide for the procurement of Anti-Submarine Warfare torpedo exercise and shore support equipment, range equipment for Fleet Operational Readiness Accuracy Check Sites (FORACS) and Sensor Accuracy Check Sites (SACS), and test equipment to support Weapon System Accuracy Trails (WSAT).

Other Ordnance Support Equipment (Includes P-1 Line Items 260-267)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$36,067	\$46,795

The FY 1987 request of \$36.1 million and the FY 1988 request of \$46.8 million for Other Ordnance Support equipment are for various ordnance programs not budgeted under other sub-budget activities within this budget activity. Some of the major programs include: Explosive Ordnance Disposal equipment, Unmanned Seaborne Targets, and Stock Surveillance equipment. The request in both FY 1987 and FY 1988 for Explosive Ordnance

Disposal equipment provides for procurement of necessary EOD tools and equipment required for initial outfitting of EOD units. These equipments provide ordnance location and safe disposal of unexploded ordnance. The request for Unmanned Seaborne Targets provides Surface Seaborne Targets for Fleet training, with procurement of Septar Targets and Floating Automatic Scoring Target (FAST) hulls in FY 1987 and continuing in FY 1988. The request in FY 1987 and FY 1988 for Stock Surveillance equipment provides resources for determining safety, reliability, readiness, and service/shelf life of both stored and deployed Navy and Marine Corps tactical weapons and weapon systems and the causes for their degraded state. Other programs included in the FY 1987 and FY 1988 request are Swimmer Weapons Systems, Anti-Ship Missile Decoy System, Calibration equipment, and Other Ordnance Training equipment.

Other Expendable Ordnance (Includes P-1 Line Items 268-274)

	(\$ In Thousands)	
	<u>FY 1987</u>	<u>FY 1988</u>
	\$139,577	\$204,124

The FY 1987 request of \$139.6 million and the FY 1988 request of \$204.1 million is for procurement of other expendable ordnance. The Small Arms and Landing Party Ammo request in FY 1987 and FY 1988 provides ammunition in support of active naval vessels, and for active and reserve special warfare forces including replacement of Non-Combat Expenditure Requirements (NCER). Initial allowance for all approved active and reserve forces, and a combat reserve and/or material pipeline of ammunition quantities based on a "Days of Support" analysis. The FY 1987 and FY 1988 request for Pyro and Demo Material provides pyrotechnics and demolition materials for all active naval vessels, amphibious and mobile construction battalions, harbor clearance units, cargo handling and port groups, naval security groups, and naval special warfare groups. The QUICKSTRIKE request in FY 1987 and FY 1988 provides for the procurement of the 2000 lb MK-65 service and non-service mines to include the MK-58 Target Detecting Devices (TDDs) and associated safety and arming devices. The request for Fleet Mine Support Equipment in FY 1987 and FY 1988 provides for the procurement of material and production support services for the assembly of mines in stockpile. The request also provides for support of fleet proficiency training, mine warfare and mine countermeasures training, and improved stockpile mine performance. The Shipboard Expendable Countermeasures program provides for Anti-Ship Missile Decoys deployed from the MK-36 Decoy Launching System. The FY 1987 and FY 1988 request provides for SEA GNAT RF Decoys and MK-186-IR Decoys. Also included under Other Expendable Ordnance is funding for Defense Nuclear Agency (DNA) material for procurement of trainers and support equipment for the W-80 Series (TOMAHAWK) and other nuclear weapons systems in order to conduct nuclear safety studies, certification of ships/depos with respect to nuclear capability and for training and certification of weapons maintenance and handling personnel.

Spares and Repair Parts (Includes P-1 line Item 275)

The funds requested for initial spare parts support new end items and the funds requested for replenishment spare parts replace those consumed by the Fleet. Funding for this program was transferred to Budget Activity 8 in FY 1986.

BUDGET ACTIVITY 5: CIVIL ENGINEERING SUPPORT EQUIPMENT
SUMMARY OF BUDGET PLAN
(In Thousands)

	Budget Plan				JUSTIFICATION PAGE
	(Amount for Procurement Actions Programmed)				
	FY 1985 ACTUAL	FY 1986 ESTIMATE	FY 1987 ESTIMATE	FY 1988 ESTIMATE	
Passenger Carrying Vehicles	4,674	10,180	10,925	10,068	47
Trucks, Trailers, Construction and Maintenance Equipment	54,871	92,396	88,733	110,106	48
Amphibious Equipment and Combat Construction Support Equipment	66,841	82,519	42,283	51,374	48
Fleet Hospitals	69,233	27,654	110,548	82,723	49
Other Equipment	33,223	16,641	14,771	23,278	49
Total Budget Plan	228,842	229,390	267,260	277,549	

Budget Activity 5: Civil Engineering Support Equipment

(\$ In Thousands)
FY 1988 Estimate - \$277,549
FY 1987 Estimate - \$267,260
FY 1986 Estimate - \$229,390
FY 1985 Actual - \$228,842

Purpose and Scope of Work

Funds provided under this budget activity are for the procurement of passenger carrying vehicles, trucks and trailers, construction, earthmoving, maintenance, fire fighting, weight handling, amphibious and specialized equipment, combat construction support equipment, mobile utilities support equipment, fleet moorings, pollution control equipment, and fleet hospitals. This equipment is procured for Navy-wide use by the Operating Forces and Shore Establishment including only passenger carrying vehicles for the Industrial fund activities.

Passenger Carrying Vehicles (P-1 Line Item 276 & 277)

(\$ In Thousands)
FY 1987 FY 1988
\$10,925 \$10,068

This category provides for replacement and limited augmentation of buses, sedans, station wagons and armored sedans for all Navy activities. Included are replacement vehicles for Navy Industrial Fund (NIF) activities in compliance with the 97th Congress House of Representatives Conference Report No. 97-980. In addition, funding has been included to avoid uneconomical leasing through increased procurement as directed by Department of Defense Appropriation Bill, 1984, Report Number 98-427, Title III. The FY 1987 program provides for the replacement of 735 vehicles leaving an additional 1,112 which will still exceed economic replacement criteria. This category does not include ambulances, which are addressed below.

Trucks, Trailers, Construction and Maintenance Equipment (P-1 Line Items 278-286)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$88,733	\$110,106

This category includes trucks, trailers, generators, crushing, drilling, earth moving, fire fighting and weight handling equipment and ambulances for the protection and maintenance of Naval Shore Activities, Naval Construction Force, and various other Operational Forces worldwide. The funding requested is not for augmentation of the existing equipment inventory, but is an attempt to bring the quantity of equipment exceeding the economic replacement criteria to an acceptable level by FY 1991. In addition, FY 1987 funds are required to continue the ongoing program for initial outfitting of the Advanced Base Functional Component (ABFC) OPLAN (\$1.3 million), the Reserve Naval Construction Force (RNCF) (\$5.0 million), and the Assault Follow-on Echelon (AFOE) (\$4.4 million).

Amphibious Equipment (P-1 Line Item 287), and Combat Construction Support Equipment (P-1 Line Item 288)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$42,283	\$51,374

These funds provide specialized amphibious equipment which significantly enhances the Navy's capability to support Marine Corps amphibious operations through the ship-to-shore transfer of both dry and liquid cargo and is a key part of the Strategic Sealift Program. This equipment will be used by the Amphibious Construction Battalions in the Assault Echelon and Assault Follow-on Echelon phase of amphibious operations to provide essential logistic support in advanced areas having little or no port capability. The FY 1987 program includes amphibious dry cargo transfer equipment including powered and non-powered causeway sections, side loadable warping tugs, elevated causeways, roll on/roll off discharge facilities and other miscellaneous amphibious specialized equipment. In addition, FY 1988 funding is provided for the procurement of the Off-Shore Petroleum Discharge System. Combat Construction Support Equipment consists primarily of relocatable facilities such as storage magazines, fuel storage tanks, multipurpose shelters and containers, and panel buildings in support of Naval Construction Force personnel. The FY 1987 program includes the outfitting of Naval Mobile Construction Battalions with containers for prepacking Table of Allowance items and provides shelters for the protection of personnel against chemical agents at overseas Naval Bases.

Fleet Hospital (P-1 Line Item 297)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$110,548	\$82,723

Combat Zone and Communication Zone Hospitals consist of shelters, transportation equipment, medical equipment and other hospital support equipment, and will provide medical care for Navy and Marine Corps personnel during wartime. The FY 1987 program funds provide for one 500-bed Combat Zone Hospital and three 500-bed Communications Zone Hospitals in support of combat and communications zone theater bed requirements for Naval component commanders. The FY 1988 program provides for three 1,000 bed Communications Zone Hospitals.

Other Equipment (P-1 Line Items 289-296)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$14,771	\$23,278

Various other programs are budgeted in Budget Activity 5 under the category of Other equipment. Mobile Utilities Support Equipment provides electric power and high quality steam for support to the fleet while in port, and for emergency shore operations, serious utility system deficiencies and delayed military construction. Collateral equipment provides equipment and furnishings to initially outfit Military Construction projects and to replace investment items within the Naval Material Establishment for Personnel Support Facilities. Ocean Facilities Construction equipment is associated with strategic deterrence, anti-submarine warfare and other fleet underwater construction programs. Procurement of components for overhauling fleet moorings is budgeted in the Fleet Moorings program. Pollution control equipment is for compliance with Clean Air Act and Clean Water Act Amendments, various Environmental Protection Agency regulations and State Implementation plans. Also included in this category is Other Civil Engineering Support equipment for administrative equipment, public works shop equipment, and specialized inspection equipment.

BUDGET ACTIVITY 6: SUPPLY SUPPORT EQUIPMENT
SUMMARY OF BUDGET PLAN
(In Thousands)

Budget Plan					
(Amounts for Procurement Actions Programmed)					
	FY 1985 ACTUAL	FY 1986 ESTIMATE	FY 1987 ESTIMATE	FY 1988 ESTIMATE	JUSTIFICATION PAGE
Materials Handling Equipment and Systems	34,130	25,271	36,591	51,774	51
Support Equipment	9,320	2,288	9,023	9,321	52
Classified Programs	44,200	31,300	36,609	77,122	52
Total Budget Plan	87,650	58,859	82,223	138,217	

Budget Activity 6 - Supply Support Equipment

(\$ In Thousands)	
FY 1988 Estimate	- \$138,217
FY 1987 Estimate	- \$ 82,223
FY 1986 Estimate	- \$ 58,859
FY 1985 Actual	- \$ 87,650

Purpose and Scope of Work

This budget activity finances the procurement of forklift trucks and other materials handling equipment used at Navy installations and aboard ships, automated materials handling systems; investment type support equipment; and reprographics equipment. In addition, financing for certain classified projects is included in this activity.

Justification of Funds

Materials Handling Equipment and Systems (P-1 Line Items Nos. 298-300)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$36,591	\$51,774

These funds are requested to procure Forklift trucks in FY 1987 and FY 1988 which are needed for the cyclical replacement of equipments which have exceeded their economic replacement criteria in use aboard ships and at shore activities. These overage equipments are more costly to maintain than to replace. As of the end of the FY 1987 funded delivery period, 39 percent of the ashore and 6 percent of the afloat inventory of Forklift trucks will be overage, based on a standard life expectancy of 11 years.

For Other Materials Handling equipment, the FY 1987 request represents the eleventh increment of a phased equipment replacement program designed to reduce the significant level of overage warehouse tractors, cranes and other equipment in the inventory. The requested FY 1987 program decreases the level of overage equipment in the inventory to 36 percent ashore and 11 percent afloat.

The requested funds for the Automated Materials Handling Systems will provide for the installation of three Navy Integrated Storage Tracking and Retrieval Systems (NISTARS) in FY 1987 and FY 1988. NISTARS automates certain warehouse functions and places the entire warehouse operation under positive management control and automation. It improves the efficiency of labor and materials, as well as improves inventory accuracy. These systems should produce sizeable savings as well as improve supply support responsiveness.

Other Supply Support Equipment (P-1 Line Items Nos. 301-302)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$9,023	\$9,321

The request for Other Supply Support equipment includes the procurement of shop and office equipment, reprographics, uninterrupted power service units, and enlisted dining facilities equipment.

Classified Programs (P-1 Line Items Nos. 303-304)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$36,609	\$77,122

Details of these programs are of a higher classification. Justification is provided separately.

BUDGET ACTIVITY 7: PERSONNEL AND COMMAND SUPPORT EQUIPMENT
SUMMARY OF BUDGET PLAN
(In Thousands)

	Budget Plan				JUSTIFICATION PAGE
	<u>Amounts for Procurement Actions Programmed</u>				
	FY 1985 ACTUAL	FY 1986 ESTIMATE	FY 1987 ESTIMATE	FY 1988 ESTIMATE	
Training Equipment	105,491	102,612	129,909	167,402	54
Command Support Equipment	125,482	255,981	181,448	215,014	55
Computer Acquisition Equip	227,412	163,496	221,279	242,402	55
Productivity Programs	12,990	4,393	23,659	9,879	56
Total Budget Plan	471,375	526,482	556,295	634,697	

Budget Activity 7: Personnel and Command Support Equipment

	(\$ In Thousands)
FY 1988 Estimate	- 634,697
FY 1987 Estimate	- 556,295
FY 1986 Estimate	- 526,482
FY 1985 Actual	- 471,375

Purpose and Scope of Work

This budget activity finances the procurement of Training Equipment, Command Support Equipment, Computer Equipment and Productivity Investment Programs.

Justification of Funds

Training Equipment (P-1 Line Items 305-312)

(\$ In Thousands)	FY 1987	FY 1988
	\$129,909	\$167,402

Surface training devices will provide maintenance, operator, team, and refresher training for new combat systems/capabilities being introduced into the fleet. Requested funding supports a variety of cost effective devices including Surface Sonar Trainers, Ship System Trainers and Surface Combat System Trainers (FY 1987 \$75.1 million; FY 1988 \$104.1 million).

The submarine trainers will enhance capability to teach normal and emergency ship control procedures to improve skills and submerged ship handling proficiency; provide operator and team training on newly developed sonar systems; support land based training for submarine fire control/combat system attack center team training; provides simulated surfaced submarine piloting techniques; and provide a visual tactical target capability in submarine training attack centers to teach personnel to integrate information and make critical tactical decisions (FY 1987 \$38.8 million; FY 1988 \$47.5 million).

Funding is required to procure Training Support Equipment (TSE) consisting of minor training aids and devices to support the education and training programs to supply the fleet with effectively trained personnel (FY 1987 \$12.6 million; FY 1988 \$11.4 million).

Training Device Modifications provide cost-effective enhancements to update the existing inventory of training devices. The modifications help maintain the training value of devices and keep them compatible with equivalent changes made to the fleet operational equipments which these devices simulate (FY 1987 \$3.3 million; FY 1988 \$4.4 million).

Command Support Equipment (P-1 Line Items 313-321, 324)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$181,448	\$215,014

This funding provides for the procurement of items which are centrally managed including Command Support, Intelligence, Education, Medical Operating Forces, Naval Reserve, Oceanographic, Physical Security and Non-Centrally Managed equipment.

This request includes equipment needed for the Naval Intelligence Command and its field activities. It is a part of the General Defense Intelligence Program (GDIP) requirements. Further information on this program is classified. Additional details on this procurement request are contained in the Intelligence Justification Books which are provided separately.

Funding is also requested to procure Medical Support equipment. Funds are requested for acquisition of medical equipment in support of direct health care delivery. Funds are requested to replace existing worn-out, obsolete assets and to provide for the acquisition of new technological developments for a modern health care delivery system.

Funds are requested for acquisition of equipment to support the following Physical Security programs: Nuclear Weapons Security, Sensitive Ordnance Security, and Remote Sensors and other intrusion detection devices required for physical security at Naval bases and sensitive installations.

Computer Acquisition Program (P-1 Lines Items 322-323)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$221,279	\$242,402

The Computer Acquisition Program (CAP) was established to optimize the procurement of general purpose Automated Data Processing Equipment (ADPE) Navy-Wide. The procurement of ADPE through the CAP represents the culmination of several planned and developed ADP systems that are ready for deployment and introduction throughout the fleet. The work load that is performed directly supports such day-to-day efforts as fleet supply and logistics, maintenance, financial and personnel management, and health management, all of which are currently either performed manually or in part by using old, obsolete, and unreliable data processing support. The automation and upgrade capability to be funded by the CAP would lighten Fleet work load and modernize ADP directly improving overall Fleet readiness.

Productivity Programs (P-1 Line Items 325-326)

(\$ In Thousands)	
<u>FY 1987</u>	<u>FY 1988</u>
\$23,659	\$9,879

Funds requested for the Productivity Investment Fund are used to purchase, install and demonstrate improved general purpose equipment, tools and procedures. The objective of productivity investments is to apply capital investment in exchange for labor intensive and costly operations in government by investments in modern equipment, methods and labor saving devices. It also realizes a continuing stream of benefits through the reduction of recurring operating costs. Projects involve the replacement of old and outmoded equipment and procedures to reduce inefficiency and maintenance costs. This frequently implants new technology as well as enabling growth in efficiency and the solution of emerging problems in operations and logistics. The technology factor has been credited with at least 40 percent of all productivity growth over the past five decades of domestic experience. Productivity investments directly address the unfunded backlog of compelling investment opportunities existing in the Navy.

BUDGET ACTIVITY 8: SPARES AND REPAIR PARTS
SUMMARY OF BUDGET PLAN
(In Thousands)

	FY 1985 ACTUAL	FY 1986 ESTIMATE	FY 1987 ESTIMATE	FY 1988 ESTIMATE	JUSTIFICATION PAGE
SPARES AND REPAIR PARTS					
INITIAL	(227,049)	233,474	292,094	378,982	58
REPLENISHMENT	(24,934)	26,556	31,798	30,428	58
TOTAL BUDGET PLAN	(251,983) 1/	260,030	323,892	409,410	

1/ Funding was budgeted within the individual Budget Activities in FY 1985 and prior fiscal years.

Budget Activity 8 - Spares and Repair Parts (P-1 Line Item 358)

(\$ In Thousands)
FY 1988 Estimate - \$409,410
FY 1987 Estimate - \$323,892
FY 1986 Estimate - \$260,030
FY 1985 Actual - (\$251,983)

Purpose and Scope of Work

Budget Activity 8 provides for all Other Procurement, Navy (OPN) spares which were formally procured in the Individual Budget Activities (FY 1985 and prior). The funding requested provides for the procurement of spares and repair parts for all equipments requiring support by the Systems Commands prior to transitioning into the Navy Supply System Material and is divided between Initial spares (\$292.1 million in FY 1987 and \$379.0 million in FY 1988) and Replenishment spares (\$31.8 million in FY 1987 and \$30.4 million in FY 1988). The FY 1987 program of \$323.9 million includes the procurement of \$.8 million of ships initial spares, \$166.3 million of communications and electronics initial spares, \$14.6 million of aviation initial spares, \$103.9 million of ordnance initial spares, \$3.6 million of civil engineering initial spares, \$3.0 million of personnel and command initial spares, \$9.6 million of aviation replenishment spares, and \$22.2 million of ordnance replenishment spares. - The FY 1988 program of \$409.4 million includes the procurement of \$1.0 million of ships initial spares, \$178.2 million of communications and electronics initial spares, \$24.9 million of aviation initial spares, \$168.7 million of ordnance initial spares, \$3.5 million of civil engineering initial spares, \$2.8 million of personnel and command initial spares, \$4.4 million of aviation replenishment spares, and \$26.0 million of ordnance replenishment spares.

COMPARISON OF FY 1986 PROGRAM REQUIREMENTS AS REFLECTED
IN FY 1986 BUDGET WITH FY 1986 PROGRAM REQUIREMENTS AS
SHOWN IN FY 1987 BUDGET

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

	Total Program Requirements Per FY 1986 Budget	Program Requirements Per FY 1987 Budget	Increase (+) or Decrease (-)
1. Ships Support Equipment	922,957	907,548	-15,409
2. Communications & Electronics Equip	2,153,996	2,016,065	-137,931
3. Aviation Support Equipment	1,184,018	1,141,428	-42,590
4. Ordnance Support Equipment	1,396,511	1,241,480	-155,031
5. Civil Engineering Support Equip	221,558	229,390	+7,832
6. Supply Support Equipment	62,495	58,859	-3,636
7. Personnel & Command Support Equip	379,827	526,482	+146,655
8. Spares and Repair Parts	279,838	260,030	-19,808
Reimbursable Program	50,000	50,000	-
Total Fiscal Year Program	6,651,200	6,431,282	-219,918

EXPLANATION BY BUDGET ACTIVITY

1. Ships Support Equipment (\$-15.4 Million)

The decrease of \$15.4 million resulted from the following: Specific Congressional reductions to Other Propellers and Shafts (\$1.0 million), Carrier Navigation Systems (\$3.2 million), Submarine Life Support System (\$6.9 million), and an undistributed Congressional reduction of \$16.3 million. In addition, adjustments include a specific Congressional increase of \$12.0 million for Sealift Support Equipment.

2. Communications and Electronic Equipment (\$-137.9 Million)

The decrease of \$137.9 million resulted from distribution of \$78.2 million for the Congressional undistributed reduction as well as specific Congressional reductions to the following: AN/SYS () (\$-8 million), AN/BQ-5 (\$1.7 million), Sonar Support Equipment (\$2.0 million), Submarine Advanced Combat System (\$2.8 million), ASW Operations Center (\$2.4 million), AN/SLQ-32 (\$5.0 million), NAVSTAR GPS Receivers (\$4.0 million), Automatic Carrier Landing Systems (\$9.2 million), Air Station Support Equipment (\$-7 million), Microwave Landing System (\$7.4 million), FACSAC (\$32.5 million), Naval Space Surveillance System (\$3.1 million), Shipboard HF Communications (\$8.6 million), and SATCOM Ship Terminals (\$1.1 million). Additional adjustments resulted from specific Congressional increases of \$6.8 million for the AN/SQR-17 Acoustic Processor, \$11.8 million for the AN/BLD-1 and \$2.0 million for the 9th Battalion Communications and Electronics equipment.

EXPLANATION BY BUDGET ACTIVITY

3. Aviation Support Equipment (\$-42.6 Million)

The decrease of \$42.6 million resulted from the following: Specific Congressional reductions to Machine Gun Ammunition (\$13.2 million), Practice Bombs (\$16.5 million), Airborne Expendable Countermeasures (\$9.1 million), BIGEYE Chemical Weapon (\$21.5 million) JATOS (\$1.0 million), GATOR (\$44.7 million), Aircraft Rearming Equipment (\$32.0 million), Catapults and Arresting Gear (\$1.4 million), and Miscellaneous Survival Equipment (\$.9 million). Other adjustments include Congressional increase of \$35.0 million for the Low Cost Sonobuoy, \$4.3 million for Mobile Van Support Units and \$50.0 million for Aviation War Reserve Munitions and below threshold adjustments of \$8.4 million.

4. Ordnance Support Equipment (\$-155.0 Million)

The decrease of \$155.0 million resulted from the following: Specific Congressional reductions to 16 Inch Gun Ammunition (\$5.0 million), 76mm Gun Ammunition (\$17.3 million), Other Ship Gun Ammunition (\$.7 million), Point Defense Support Equipment (\$32.0 million) Explosive Ordnance Disposal Equipment (\$.9 million), and QUICKSTRIKE (\$10.8 million). Further reductions of \$108.3 million were the result of the application of the Congressional undistributed and inflation reestimate reductions. In addition, this Budget Activity reflects a Congressional increase of \$20.0 million for War Reserve Munitions.

5. Civil Engineering Support Equipment (\$+7.8 Million)

The increase of \$7.8 million resulted from a Congressional increase of \$11.0 million for the 9th Battalion equipment support, an appropriation transfer of \$3.7 million for Environmental Restoration and the application of the Congressional undistributed reduction \$6.9 million.

6. Supply Support Equipment (\$-3.6 Million)

The decrease of \$3.6 million resulted from a Congressional reduction to Special Purpose Supply Systems.

7. Personnel and Command Support Equipment (+146.7 Million)

The adjustment resulted from specific Congressional additions of \$44.2 million for Medical Support Equipment, \$14.0 million for Oceanographic Support Equipment and the transfer of \$125.3 million for Non-Centrally Managed Items. Additionally, the adjustment reflects the application of a specific Congressional reduction of \$3.9 million for Intelligence Support Equipment and the application of \$32.9 million for the Congressional undistributed reduction.

EXPLANATION BY BUDGET ACTIVITY

8. Spares and Repair Parts (\$-19.8 Million)

The decrease of \$19.8 million resulted from the application of the Congressional undistributed reduction and inflation reestimate reductions.

Comparison of FY 1986 Financing as Reflected
In FY 1986 Budget With FY 1986 Financing As
Shown in FY 1987 Budget

	Financing Per FY 1986 Budget	Financing Per FY 1987 Budget	Increase (+) or Decrease (-)
Program requirements (Total)	6,651,200	6,431,282	-219,918
Program Requirements (Service account)	6,601,200	6,377,630	-223,570
Program Requirements (Reimbursable)	50,000	50,000	
Less: Anticipated Reimbursements	50,000	50,000	
Reprogramming from prior year budget plans			
unobligated balance available from prior year to finance new budget plans			
Transferred from other accounts		3,652	+3,652
Add: Reduction pursuant to P. L. 97-377			
Unobligated balance available to finance subsequent year budget plans			
Transferred to other accounts			
Appropriation	6,601,200	6,381,282	-219,918

Explanation of Changes in Financing

1. Program Requirements (TOTAL).

The decrease reflects Congressional action to the FY 1986 President's Budget Request.

2. Program Requirements (Service Account).

The decrease reflects Congressional action to the FY 1986 President's Budget Request.

3. Transferred From Other Accounts.

The increase reflects a transfer of funds appropriated in other accounts for Environmental Restoration.

4. Appropriation.

The decrease reflects the difference between what was requested in January 1985 for the FY 1986 President's Budget, and the amount that was actually appropriated.

COMPARISON OF FY 1985 PROGRAM REQUIREMENTS AS REFLECTED
IN FY 1986 BUDGET WITH FY 1985 PROGRAM REQUIREMENTS AS
SHOWN IN FY 1987 BUDGET

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

	Total Program Requirements Per FY 1986 Budget	Program Requirements Per FY 1987 Budget	Increase (+) or Decrease (-)
1. Ships Support Equipment	761,807	743,894	-17,913
2. Communications & Electronics Equip	1,710,167	1,582,557	-127,610
3. Aviation Support Equipment	972,640	931,874	-40,766
4. Ordnance Support Equipment	1,103,391	1,060,565	-42,826
5. Civil Engineering Support Equip	232,509	228,842	-3,667
6. Supply Support Equipment	89,725	87,650	-2,075
7. Personnel & Command Support Equip	471,375	471,375	-
Reimbursable Program	40,000	21,272	-18,728
Total Fiscal Year Program	5,381,614	5,128,029	-253,585

EXPLANATION BY BUDGET ACTIVITY

1. Ships Support Equipment (\$-17.9 Million)

The decrease of \$17.9 million results from a Congressional reduction for prior year contract and inflation savings (\$8.9 million) and a proposed inter-appropriation reprogramming of \$9.0 million.

2. Communications & Electronic Equip (\$127.6 Million)

The decrease of \$127.6 million results from a Congressional reduction for prior year contract and inflation savings (\$122.6 million) and a proposed inter-appropriation reprogramming of \$5.0 million.

3. Aviation Support Equipment (\$-40.8 Million)

The decrease of \$40.8 million results from a Congressional reduction for prior year contract and inflation savings (\$20.6 million) and a proposed inter-appropriation reprogramming of \$20.2 million.

EXPLANATION BY BUDGET ACTIVITY

4. Ordinance Support Equipment (\$-42.8 Million)

The decrease of \$42.8 million results from a Congressional reduction for prior year contract and inflation savings.

5. Civil Engineering Support Equip (\$-3.7 Million)

The decrease of \$3.7 million results from a Congressional reduction for prior year contract and inflation savings.

6. Supply Support Equipment (\$-2.1 Million)

The decrease of \$2.1 million results from a Congressional reduction for prior year contract and inflation savings.

Comparison of FY 1985 Financing As Reflected
In FY 1986 Budget With FY 1985 Financing As
Shown In FY 1987 Budget

	Financing Per FY 1986 Budget	Financing Per FY 1987 Budget	Increase (+) or Decrease (-)
Program requirements (Total)			
Program Requirements (Service account)	5,381,614	5,128,029	-253,585
Program Requirements (Reimbursable)	5,341,614	5,106,757	-234,857
	40,000	21,272	-18,728
Less:			
Anticipated Reimbursements	40,000	21,272	-18,728
Reprogramming from prior year budget plans			
Unobligated balance available from prior year to finance new budget plans			
Transferred from other accounts			
Add:			
Unobligated balance available to finance subsequent year budget plans		234,957	+234,957
Transferred to other accounts			
Appropriation	5,341,614	5,341,614	0

Explanation of Changes in Financing

1. Program Requirements (TOTAL).

The decrease reflects Congressional reductions for prior year savings and proposed inter-appropriation transfer.

2. Program Requirements (Service Account).

The decrease in program requirements represents the effect of Congressional reductions and funding proposed for inter-appropriation transfers.

3. Program Requirements (Reimbursable).

The decrease in the reimbursable program reflects actual orders received in FY 1985.

4. Anticipated Reimbursements.

The decrease is based on actual orders received in FY 1985.

5. Unobligated Balance Available from Prior Year to Finance New Budget Plans.

The increase represents balances set aside by the Congress to fund other requirements and proposed inter-appropriation transfers.

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